Live

Multi-Purpose

Recording / Post-Production

Digital Interface Units

Power Supply Units

SOUNDCRAFT MIXING CONSOLES

RANGE CATALOGUE

Soundcraft

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The Soundcraft Range

From live sound to post-production, Soundcraft mixing consoles are built to perform. With professional features, intuitive operation and uncompromised sound quality, Soundcraft consoles are relied upon throughout the professional audio industry, delivering optimum performance time after time.

Drawing from 30 years' mixing console design and manufacturing expertise, Soundcraft has developed a unique insight into professional audio requirements. World-class production techniques, combined with extensive testing procedures, ensure that every mixing console is built to the same exacting standards.

Series FIVE at The Troubadour, West Hollywood

Soundcraft's **Live** range features both front-of-house, monitor and dual-purpose consoles, all designed to cope with the increasing demands of touring and theatre installations. From the highly-specified Series FIVE front-of-house console to the compact Spirit Powerstation powered mixer, Soundcraft live consoles combine lightness and strength, offering exceptional portability, great flexibility and unprecedented mixing control. A comparison chart on page 68 provides an at-a-glance guide to the range's features, simplifying the choice of console for any live application. Comparison charts are also provided for multi-purpose and recording/post-production consoles.

MH4 at the Cubby Bear Club, USA

Soundcraft's **Multi-Purpose** console range combines professional facilities and sound quality with exceptional value. Suitable for stage and studio use, these consoles are ergonomically designed, achieving optimum performance from compact frames. One of the latest additions to the Soundcraft multi-purpose range is the Spirit E Series. With a special ES model featuring 10 stereo inputs and 4 mono inputs, as well as regular 6, 8 and 12 mono input frame sizes, the Spirit E Series encompasses a massive range of applications.

Spirit M Series in Sonicorn Studios, Hertfordshire, UK

Soundcraft's **Recording / Post-Production** consoles are used in a wide variety of applications, from location audio to multitrack music recording, and are easily expandable to suit even the largest production.

Spirit Folio F1 at Dundee College

Series 15 in Dave Lee Travis' Production Studio, UK

Designed for the varied requirements of on-air, TV and radio production, Soundcraft's **Broadcast** consoles are fully modular. From the specialist B800 live broadcast and production console to the RM1d digital radio console, each delivers the high levels of flexibility and functionality required in the demanding broadcast environment. Please refer to our Broadcast Range Brochure for further information on these consoles.

324 Live at the Jerry Lewis Telethon, New York

Soundcraft also manufacture a range of **Digital Interface Units** and **Power Supply Units**, featuring high quality components and circuitry throughout for exceptional reliability.

This technical catalogue contains features, specifications and block diagrams on individual Soundcraft consoles, digital interface units and power supply units. For further information, please contact Soundcraft for a product information CD (see the following page) or an individual product brochure, or visit the Soundcraft website at: **www.soundcraft.com**

The inclusion of artists in this publication does not imply endorsement.

ALSO AVAILABLE FROM SOUNDCRAFT

Additional information about the wide range of Soundcraft products can be found by visiting our website at **www.soundcraft.com** or by requesting an individual product brochure. We have also produced a number of guides and information CD-ROMs, designed to help you quickly find the information you need straight from your desktop.

PRODUCT INFORMATION CDs

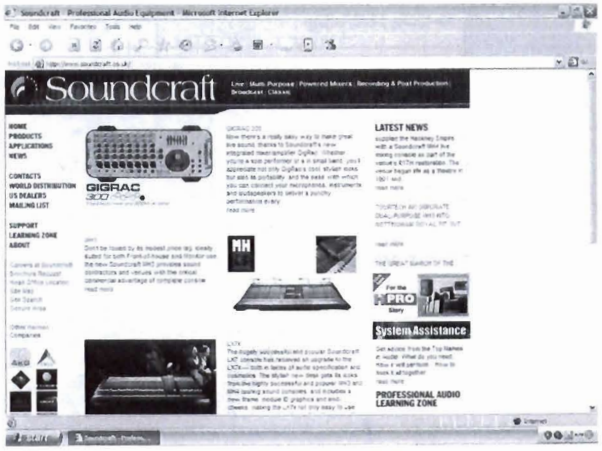
Our Product Information CD and Product Images CD are PC and Mac compatible and are designed to run on any standard web browser. The information CD features product summary pages, which contain a picture and brief description of each console in the Soundcraft range, together with brochures, technical data and user guides. The images CD features hi-res, lo-res, greyscale and web-optimised images, along with product and corporate logos.

MIXING GUIDES

To help you get the most out of your Soundcraft console, we have produced two booklets – The Soundcraft Guide to Mixing and The Spirit Guide to Digital Mixing. Each guide contains information on choosing and using your mixer and sound equipment, together with connection and setup guides, mixing techniques, sample applications and troubleshooting. These guides are also available on the Product Information CD as PDF files.

SOUNDCRAFT WEBSITE

Our website at **www.soundcraft.com** is updated regularly and provides a great source for all the latest news from Soundcraft. Here you can find useful information in the form of downloadable brochures, user guides, technical data sheets, mark-up sheets, application guides, software updates, logos, images and advertisements. The website also contains contact information for all sales, technical support and service enquiries.



For further information, please contact our Marketing Department on +44 (0)1707 665000 or via email at info@soundcraft.com

MH4

- Now equipped to handle 16 separate monitor mixes
- Fully modular frame sizes: 24+4, 32+4, 40+4, 48+4, 56+4
- Flexible Auxiliary Bus structure (with up to four stereo sends for in-ear monitoring) allows use as FOH, Monitors or a combination
- 8 Group busses with 12 Aux busses in total (FOH mode)
- 16 Monitor busses (configurable as 16 mono, 12 mono/2 stereo, 8 mono/4 stereo) in Monitor mode
- LCR panning on inputs
- Semi-parametric EQ on stereo aux outputs
- Integral 20x8 Ouptut matrix
- 8 VCA groups and 8 Mute groups
- Snapshot automation and MIDI control
- Integrated control of dbx DriveRack and BSS Varicurve

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@+10dBu)	XLR In to Direct Out ..... < 0.006% @ 1kHz < 0.01% @ 10kHz XLR In to Mix Out ..... < 0.006% @ 1kHz < 0.01% @ 10kHz
Noise	Mic Input E.I.N. (22Hz-22kHz, unweighted) ..... < - 128dBu (150Ω source) Mix Output Residual Noise (no inputs routed, Mix fader @ 0dB) ..... -90dB Mix Output Bus Noise (48 ch. routed, faders @ -∞, Mix fader @ 0dB) . < -84dBu Grp Output Bus Noise (48 ch. routed, faders @ -∞, Grp fader @ 0dB) . < -84dBu Aux Output Bus Noise (48 ch. routed, sends @ -∞, Grp fader @ 0dB) . < -85dBu
Crosstalk (1kHz, +20dBu input signals)	Input Channel muting ..... > 102dB Input fader cutoff ..... > 100dB Input pan pot isolation ..... > 60dB Mix routing isolation ..... > 102dB Group routing isolation ..... > 88dB Group-group crosstalk ..... < -90dB Group-Mix crosstalk ..... < -90dB Mix-group crosstalk ..... < -95dB Aux send off ..... < -93dB
CMRR	Mono input ..... -85dB @ 1kHz
Oscillator	63Hz to 10kHz/Pink Noise, variable level
HP Filter (Mono Input)	30-400Hz, 12dB/octave
EQ (Mono Input)	HF ..... 1.2kHz - 20kHz, ±15dB, shelving Hi-Mid ..... 750Hz - 12kHz, ±15dB, Q = 0.5 - 3.0 Lo-Mid ..... 75Hz - 1.2kHz, ±15dB, Q = 0.5 - 3.0 LF ..... 35Hz - 550Hz, ±15dB, shelving
Metering	Overbridge .... 8 VU Meters monitoring Group/Aux/Matrix, + 3 VU Meters monitoring Left Mix/AFL/PFL, Right Mix/AFL/PFL & Mono (centre) Mix + Peak LEDs Mono & Stereo Inputs ..... 12-LED bargraph + Peak LED

Power Consumption	48 Ch Console, each 17V rail takes 6.5A (nominal)(measured without Littlites connected) The 8V rail takes 0.5A (nominal)
Operating conditions	Temperature Range ..... -10°C to +30°C Relative Humidity ..... 0% to 80%
Power Supply Unit	Type CPS800

INPUT / OUTPUT SPECIFICATIONS

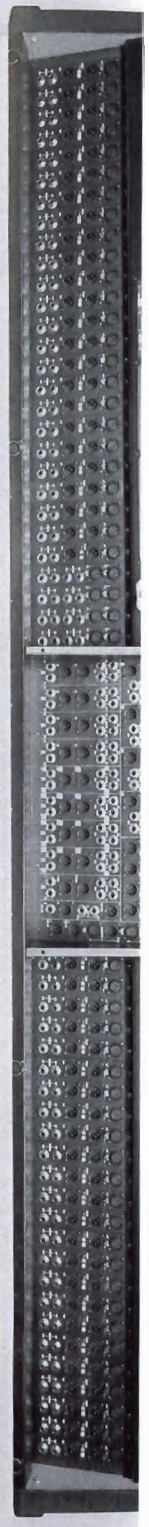
Input & Output Levels	Mic Input ..... +26dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +21dBu max. Nominal Operating Level 0dBu
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

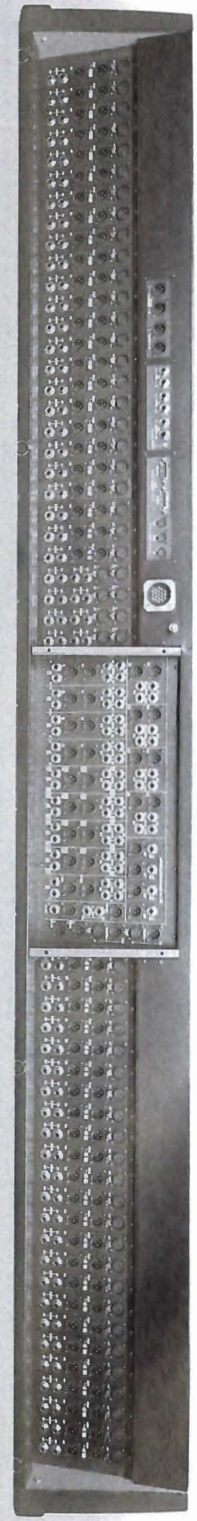
Height	All frame sizes ..... 365mm (14.4")
Width	24 channel ..... 1446mm (56.9") 32 channel ..... 1715mm (67.5") 40 channel ..... 1969mm (77.5") 48 channel ..... 2223mm (87.5") 56 channel ..... 2476mm (97.5")
Depth	All frame sizes ..... 813mm (32.0")
Weight	24 channel ..... 76 kg (167 lbs) 32 channel ..... 89 kg (196 lbs) 40 channel ..... 102 kg (225 lbs) 48 channel ..... 115 kg (253 lbs) 56 channel ..... 150 kg (557 lbs)

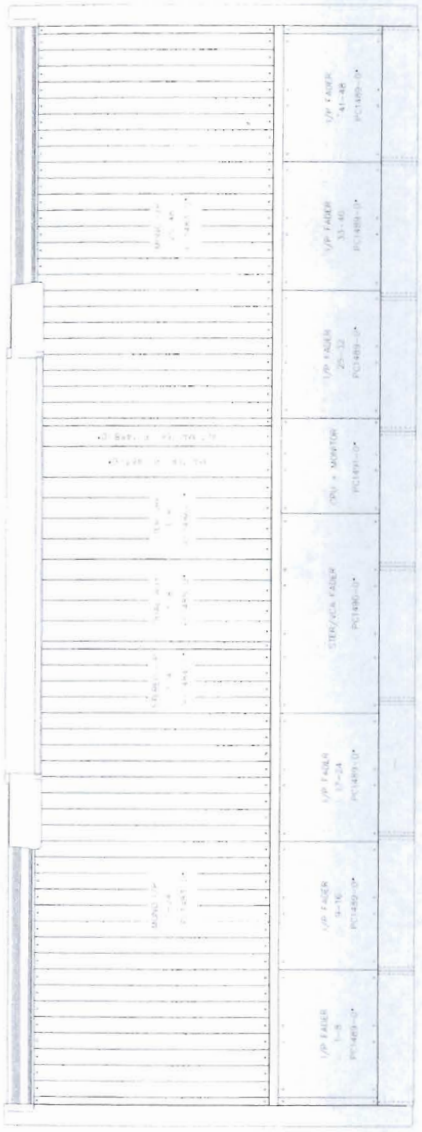
MH 4

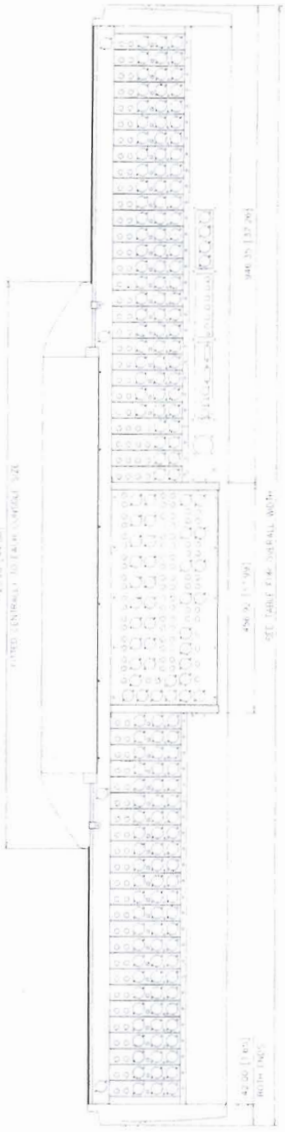
REAR PANE



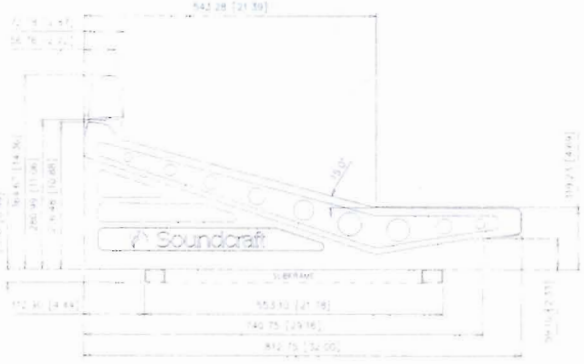
REAR PANEL CONNECTIONS & DIMENSIONS







SUBFRAME FITTED TO 56CH CONSOLE ONLY



NOTE: SUBFRAME FITTED ON 56CH CONSOLE ONLY

. 56+4
sends for in-ear
ation
de)
no/2 stereo, 8

e

minal)(measured

. . -10°C to +30°C
. . . . . 0% to 80%

. . . . . CPS800

. . . . +26dBu max.
. . . . +21dBu max.
. . . . +21dBu max.
. . . . . 0dBu

. . . . . 2kΩ
. . . . . > 10kΩ
. . . . . 50Ω
. . . . . < 75Ω

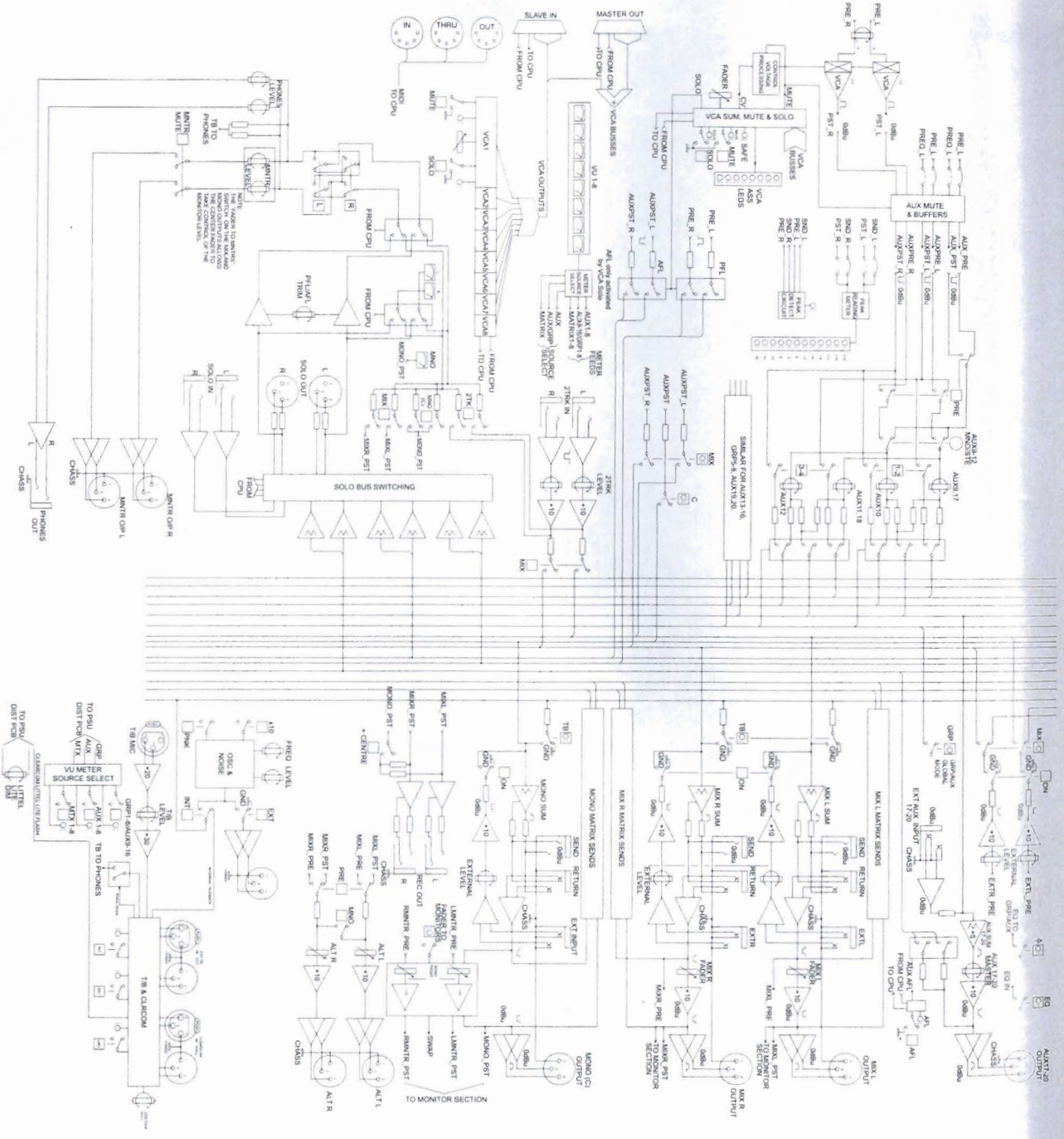
. . 365mm (14.4")

. 1446mm (56.9")
. 1715mm (67.5")
. 1969mm (77.5")
. 2223mm (87.5")
. 2476mm (97.5")

. . 813mm (32.0")

. . . 76 kg (167 lbs)
. . . 89 kg (196 lbs)
. . 102 kg (225 lbs)
. . 115 kg (253 lbs)
. . 150 kg (557 lbs)

SYSTEM BLOCK DIAGRAM



VCA SUM, MUTE & SOLO
RIGHT HAND PRE-AMP FILTER INSERT & EQ
EVEN NUMBERED GRP/AUX OUTPUT
EVEN NUMBERED AUX & MATRIX OUTPUT
AUX1,3,5,7
AUX2,4,6,8
AUX9,11,13,15 GRP1,3,5,7
AUX10,12,14,16 GRP2,4,6,8
AUX17,18,19,20
GRP MODE 1-2,3-4,5-6,7-8
LEFT
CENTRE
RIGHT
SOLO PST
SOLO PRE
O/P AFL
MATRIX 1,3,5,7
MATRIX 2,4,6,8
TB / OSC

MH3

- Semi-modular frame sizes: 24+4, 32+4, 40+4, 48+4, 56+4
- Flexible Auxiliary Bus structure with 2 stereo sends for in-ear monitoring
- 8 group busses and 12 aux busses (FOH mode)
- 12 monitor busses: 12 mono, or 8 mono + 2 stereo (Monitor mode)
- Swap mode allows fader control of Aux outputs in Monitor mode
- Integral 12x4 Output matrix, optional expansion to 12x8
- 3-band EQ on FX Returns 1-8, switchable to Group or Aux outputs
- LCR panning on inputs
- 8 VCA groups and 8 Mute groups
- Integrated control of dbx DriveRack and BSS Varicurve
- Integral LED bargraph metering for all inputs and outputs
- Optional VU output meterbridge

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output ..... +0/-1dB, 20Hz - 20kHz
T.H.D. (@+10dBu)	XLR In to Direct Out ..... < 0.015% @ 1kHz < 0.02% @ 10kHz XLR In to Mix Out ..... < 0.015% @ 1kHz < 0.02% @ 10kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) ..... < -128dBu (150Ω source) Mix Output Residual Noise (no inputs routed, Mix fader @ 0dB) ..... -95dB Mix Output Bus Noise (48 ch. routed, faders @ -∞, Mix fader @ 0dB) . < -85dBu Grp Output Bus Noise (48 ch. routed, faders @ -∞, Grp fader @ 0dB) . < -85dBu Aux Output Bus Noise (48 ch. routed, sends @ -∞, Grp fader @ 0dB) . < -86dBu
Crosstalk (1kHz, +20dBu input signals)	Input Channel muting ..... > 95dB Input fader cutoff ..... > 88dB Input pan pot isolation ..... > 72dB Mix routing isolation ..... > 100dB Group routing isolation ..... > 99dB Group-group crosstalk ..... < -92dB Group-Mix crosstalk ..... < -100dB Mix-group crosstalk ..... < -100dB Aux send off ..... < -80dB
CMRR	Mono input ..... 85dB @ 1kHz
Oscillator	55Hz to 11kHz/Pink Noise, variable level
HP Filter (Mono Input)	30-400Hz, 12dB/octave
EQ (Mono Input)	HF ..... 1kHz - 20kHz, ±15dB, shelving Hi-Mid ..... 750Hz - 13kHz, ±15dB, Q = 0.5 - 3.0 Lo-Mid ..... 75Hz - 1.3kHz, ±15dB, Q = 0.5 - 3.0 LF ..... 30Hz - 500Hz, ±15dB, shelving
Metering	All inputs and outputs ..... Internal 12-segment LED bargraphs (24-segment for L/R/C outputs) Optional VU Meterpod .... 8VU meters monitoring O/P Faders 1-8/Aux 9-12/Matrix 1-4 via bank selection, and L/R/C

Power Consumption	Mains Power: 56 Ch - 600VA max., 24 Ch - 300VA 48 Ch Console, each 17V rail takes 8.5A (nominal)(measured with 4 Littlites connected). The 8V rail takes 0.2A (nominal)
Operating conditions	Temperature Range ..... -10°C to +30°C Relative Humidity ..... 0% to 80%
Power Supply Unit	Type CPS800

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +26dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +21dBu max. Nominal Operating Level 0dBu
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 0.33Ω Recommended Headphone Impedance ..... 4-600Ω All other Outputs ..... < 75Ω

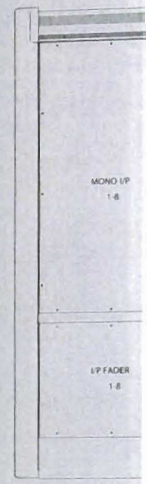
DIMENSIONS & WEIGHT

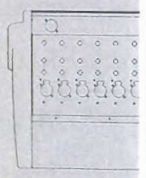
Height	All frame sizes ..... 276mm (10.9")*
Width	24 channel ..... 1419mm (55.8") 32 channel ..... 1683mm (66.2") 40 channel ..... 1947mm (76.5") 48 channel ..... 2211mm (87.0") 56 channel ..... 2475mm (97.4")
Depth	All frame sizes ..... 813mm (32.0")
Weight	24 channel ..... 68 kg (150 lbs) 32 channel ..... 80 kg (176 lbs) 40 channel ..... 92 kg (202 lbs) 48 channel ..... 103 kg (227 lbs) 56 channel ..... 115 kg (253 lbs)

* Excluding optional meterpod

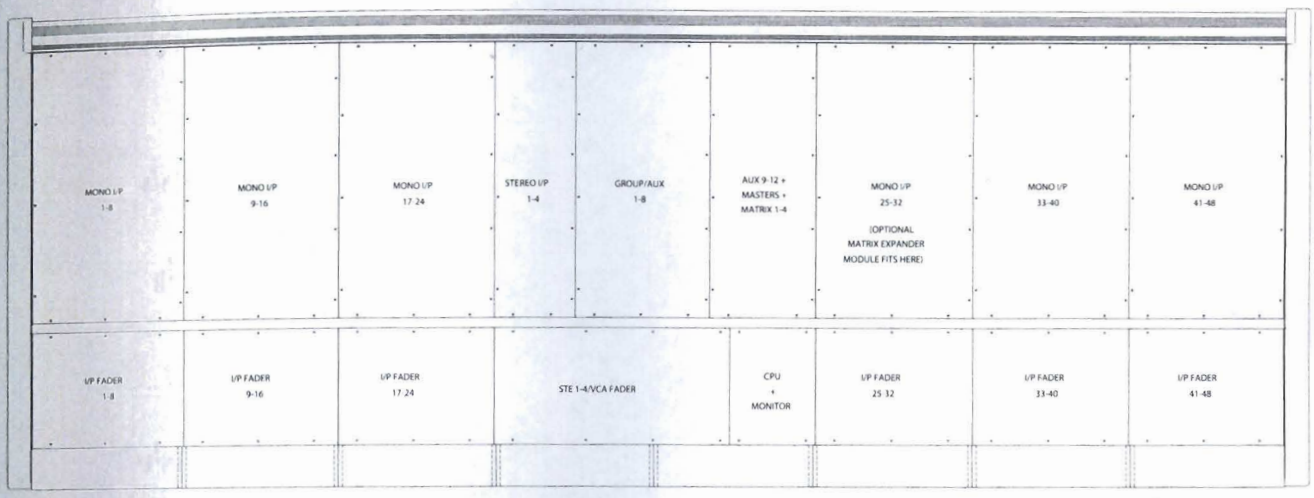
MH

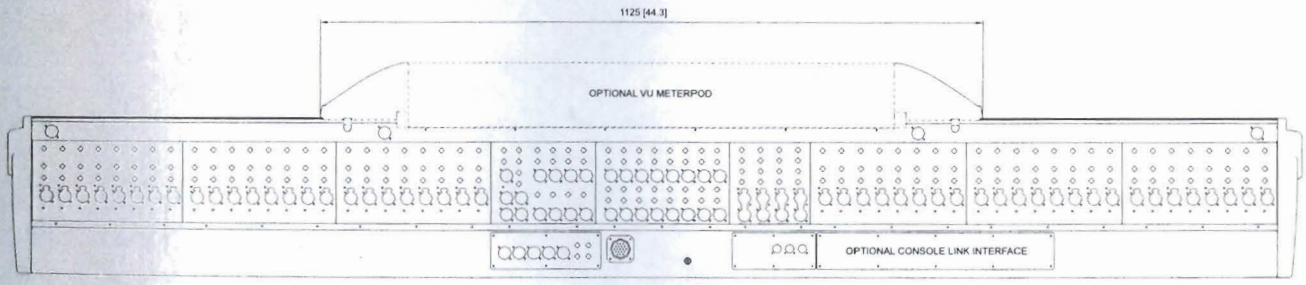
REAR PANE

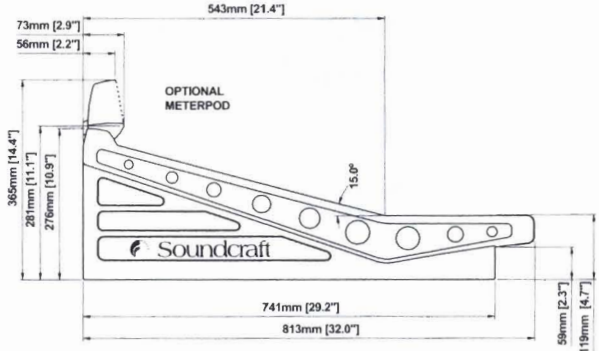




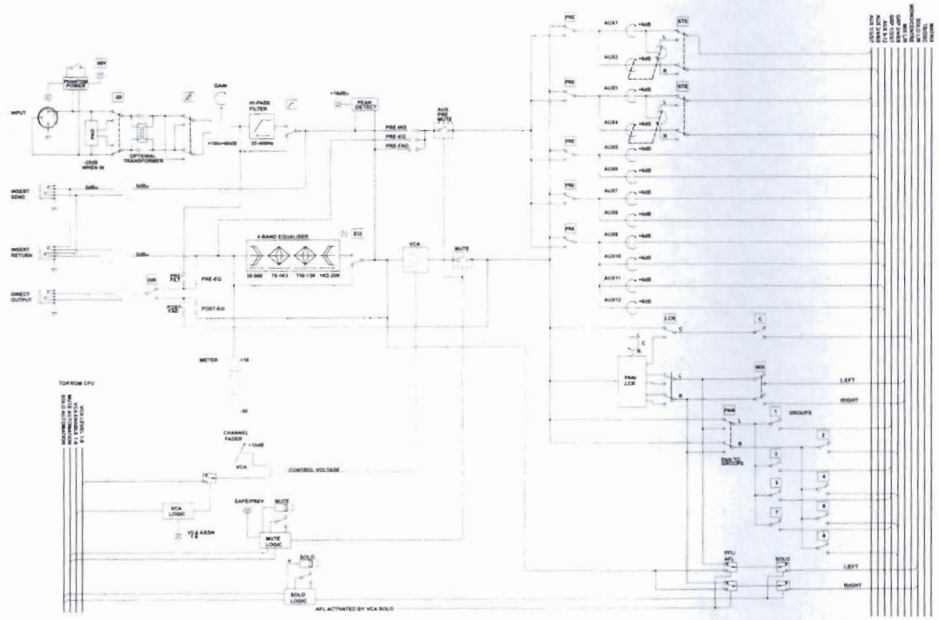
REAR PANEL CONNECTIONS & DIMENSIONS



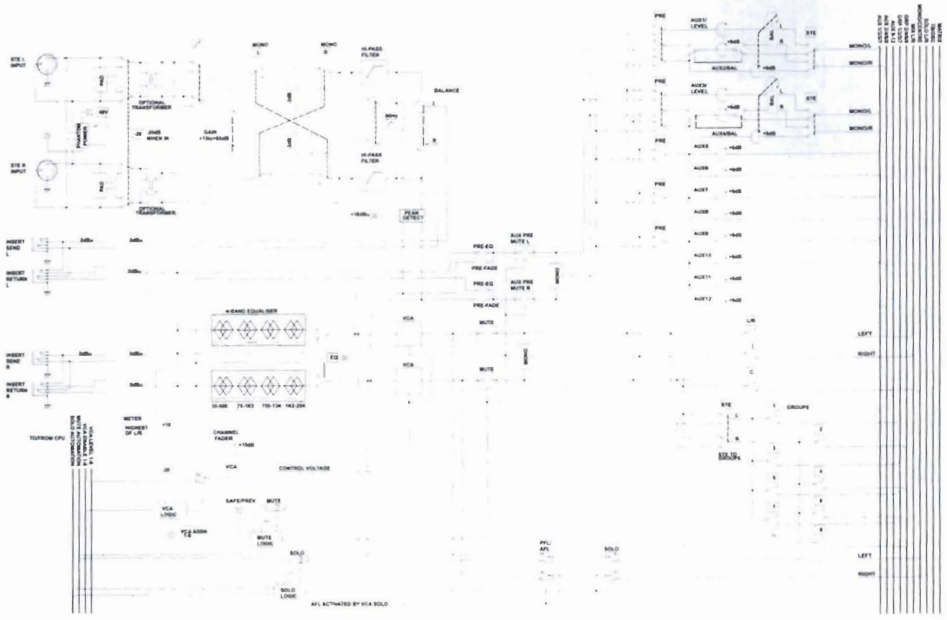




SYSTEM BLOCK DIAGRAMS



MONO INPUT MODULE



STEREO INPUT MODULE

DULE

DULE

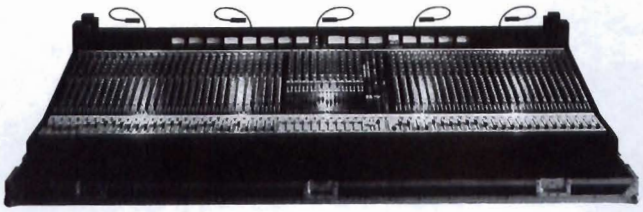
AUX, MATRIX AND LR MASTERS

GROUP/AUX RETURN MODULE

MONITORS, TB AND 'C' OUTPUT

AUTOMATION, VCA SYSTEM AND OSCILLATOR

Series FIVE



- Highly specified front-of-house console
- 24 - 56 channel frame sizes
- 4 stereo mic/line inputs with full EQ as standard
- 8 sub-groups
- 12 auxiliary busses
- 10 VCA groups
- Built-in 16x10 output matrix
- 4-band fully parametric EQ on both mono and stereo inputs
- Sweepable filters on all input channels
- Input metering on every channel
- VU output meterbridge included as standard
- 8 mute groups plus 256 MIDI controllable snapshots of all input and output mutes
- MIDI program change transmission and DataFader continuous controller
- Switchable LCR panning as standard
- Compact, lightweight frame designed to withstand touring
- Rugged power supply with three year warranty
- 28 input expander frame available

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	XLR In to Direct Out (VCA Out) ..... < 0.004% @ 1kHz < 0.02% @ 10kHz XLR In to Direct Out (VCA In) ..... < 0.015% @ 1kHz < 0.04% @ 10kHz XLR In to Mix Out (VCA Out) ..... < 0.005% @ 1kHz < 0.02% @ 10kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) .... < -127.5dBu (200Ω source) Mix Output Residual Noise (no inputs routed, Mix fader @ 0dB) ..... -90dBu Mix Output Bus Noise (32 ch. routed, faders @ -∞, Mix fader @ 0dB) . < -80dBu Grp Output Bus Noise (32 ch. routed, faders @ -∞, Grp fader @ 0dB) . < -80dBu
Crosstalk (1kHz, +20dBu input signals)	Input Channel Muting ..... > 100dB Input Fader Cut-off ..... > 90dB Input Pan Pot Isolation ..... > 85dB Input A to B Isolation ..... > 80dB Stereo L/R Isolation ..... > 80dB Mix Routing Isolation ..... > 100dB Group Routing Isolation ..... > 100dB Group-Group Crosstalk ..... > -90dB Group-Mix Crosstalk ..... > -90dB Mix-Group Crosstalk ..... > -90dB Mono Input CMRR, A or B Inputs ..... -60dB @ 1kHz
Oscillator	63Hz to 10kHz / pink noise, variable level
Filters (Mono Input)	HP ..... 20Hz - 600Hz, 12dB/octave LP ..... 1kHz - 20kHz, 12dB/octave
EQ (Mono Input)	HF ..... 1kHz - 20kHz, +/-15dB, Q = 0.5 - 3.0 or shelf Hi-Mid ..... 500Hz - 8kHz, +/-15dB, Q = 0.5 - 3.0 Lo-Mid ..... 70Hz - 1.5kHz, +/-15dB, Q = 0.5 - 3.0 LF ..... 30Hz - 480Hz, +/-15dB, Q = 0.5 - 3.0 or shelf
Metering	Overbridge ..... 12 VU Meters monitoring Group/Aux/Matrix & 3 VU Meters monitoring Left Mix/AFL/PFL, Right Mix/AFL/PFL & Mono (centre) mixes + Peak LEDs Mono Input ..... 9-LED bargraph + Peak LED Stereo Input ..... 2 x 4-LED bargraph + Peak LEDs
Power Consumption	980W (24 - 48 channel), 1960W (56 channel)
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type ..... CPS2000 (2 required on 56 channel)

INPUT / OUTPUT SPECIFICATIONS

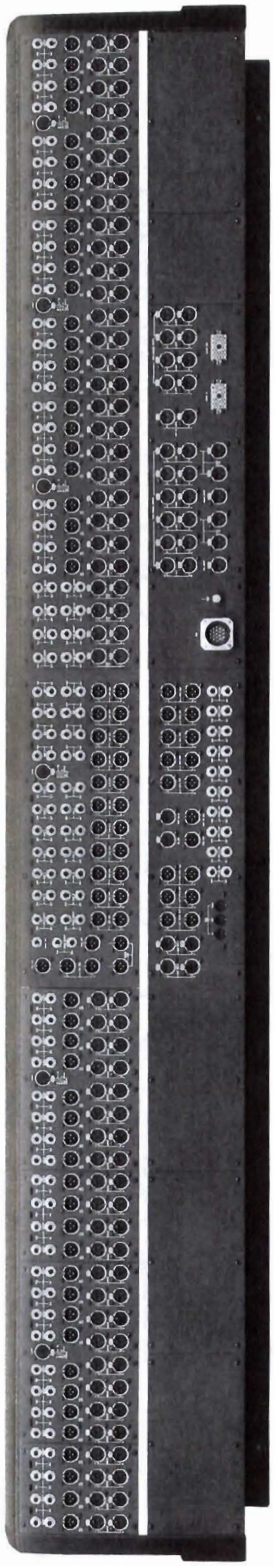
Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

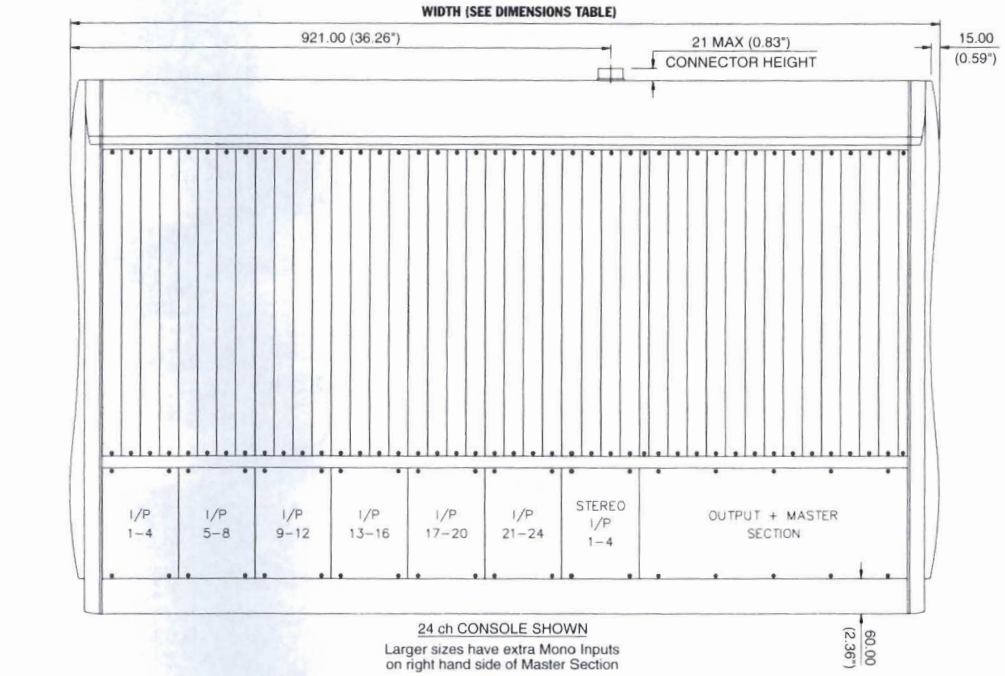
DIMENSIONS & WEIGHT

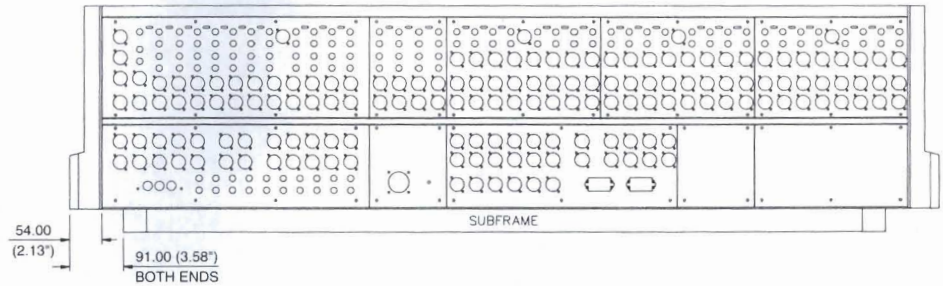
Height	All frame sizes ..... 388.7mm (15.30")
Width	24 channel ..... 1483.8mm (58.42") 32 channel ..... 1745.8mm (68.73") 40 channel ..... 2007.8mm (79.05") 48 channel ..... 2269.8mm (89.36") 56 channel ..... 2531.8mm (99.67")
Depth	All frame sizes ..... 914.0mm (35.98")
Weight	24 channel ..... 105 kg (231 lbs) 32 channel ..... 130 kg (286 lbs) 40 channel ..... 155 kg (341 lbs) 48 channel ..... 180 kg (396 lbs) 56 channel ..... 205 kg (451 lbs)

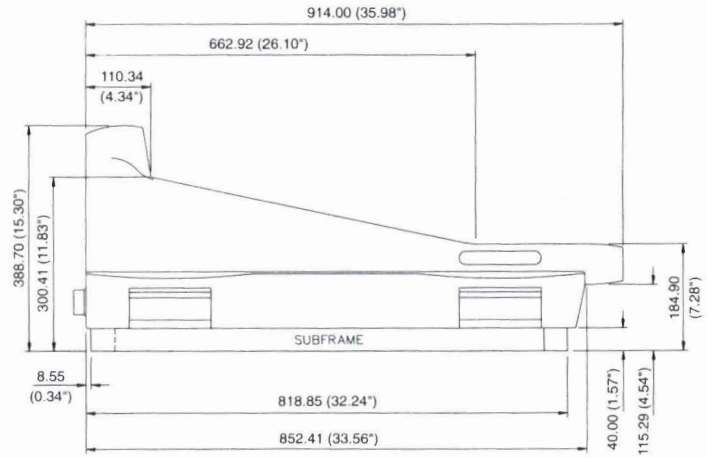
REAR PANEL

REAR PANEL CONNECTIONS & DIMENSIONS









nputs

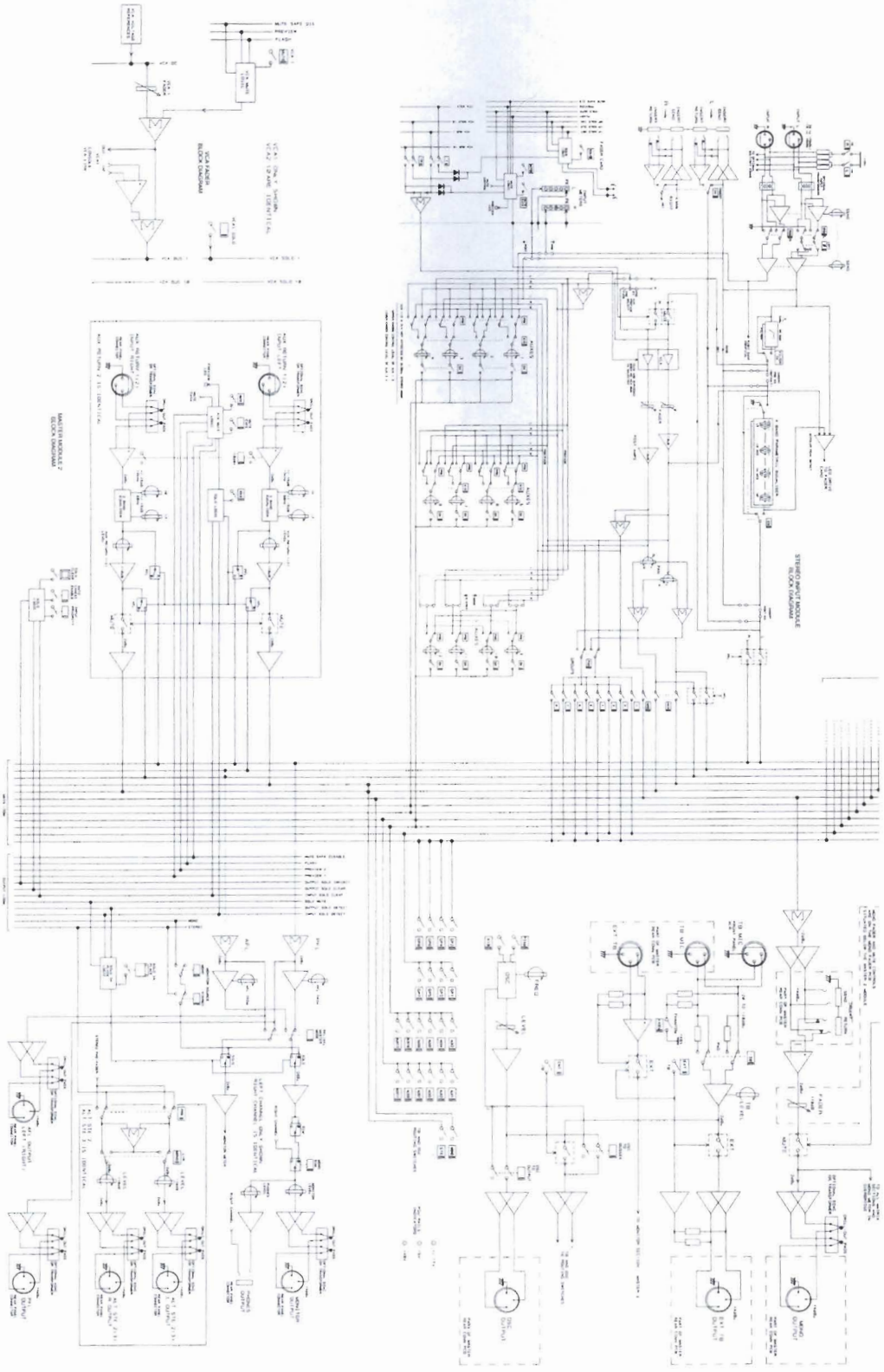
)f all input and

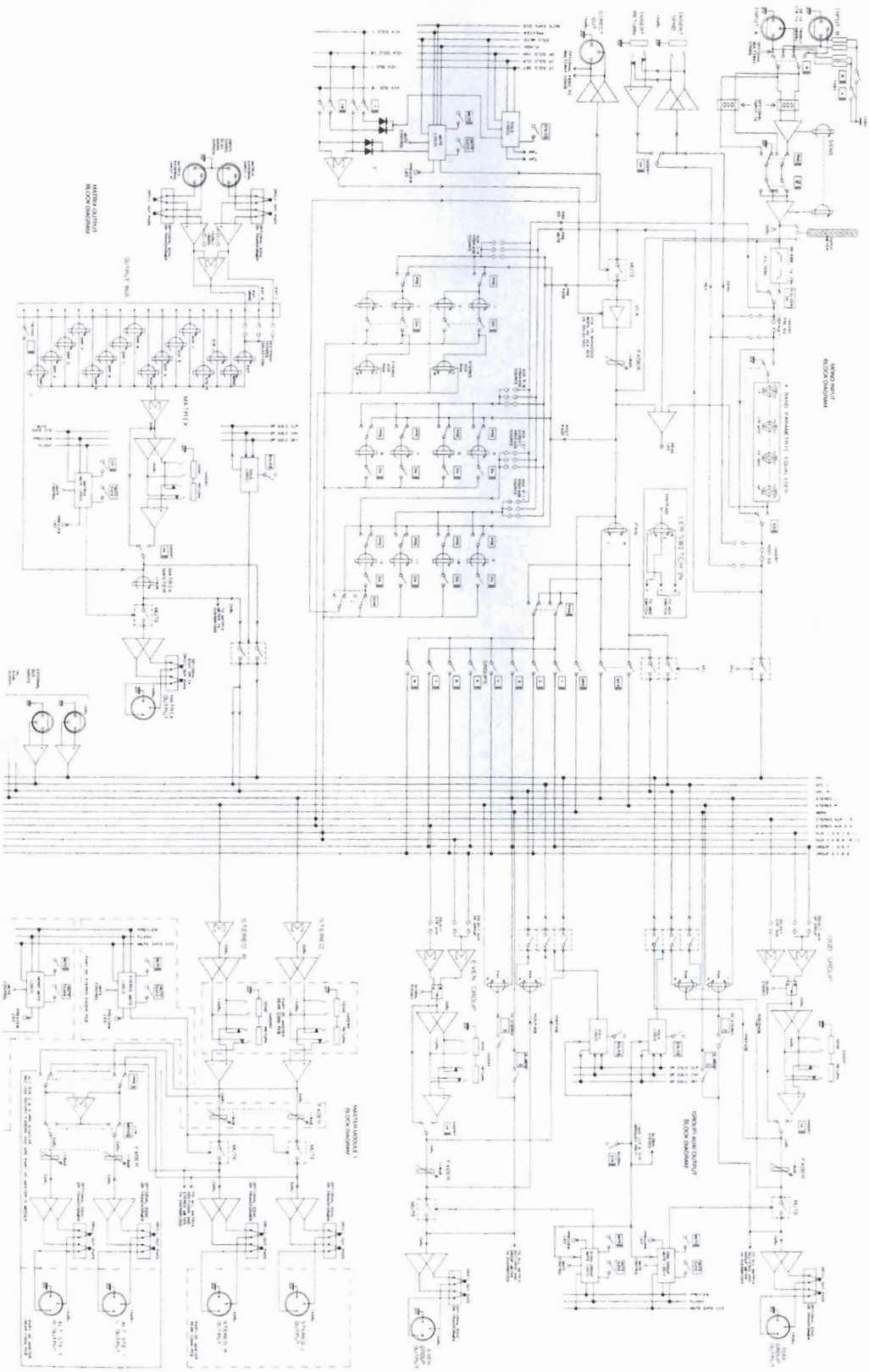
nuous controller

ing

	+30dBu max.
	+21dBu max.
	+26dBu max.
	2kΩ
	> 10kΩ
	50Ω
	< 75Ω
:88.7mm	(15.30")
·83.8mm	(58.42")
'45.8mm	(68.73")
)07.8mm	(79.05")
'69.8mm	(89.36")
:31.8mm	(99.67")
)14.0mm	(35.98")
105 kg	(231 lbs)
130 kg	(286 lbs)
155 kg	(341 lbs)
180 kg	(396 lbs)
205 kg	(451 lbs)

SYSTEM BLOCK DIAGRAM





k3 Theatre

- Modular 8-bus sound reinforcement console for live and installed sound applications
- Up to 48 channels into 8 subgroups
- 8 aux sends and 4 stereo returns
- Expandable 12 x 4 output matrix
- Unique MIDI controller fader for remote control of external devices
- 'C3' scene-set automation
- 'Range' mic amp
- Optional VU output meterbridge
- Aux sends switchable pre/post fader in pairs
- Input metering as standard

TYPICAL SPECIFICATIONS

Frequency Response	Any I/P to any O/P (measured @ up to +50dB gain) .. +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	High Impedance Input to Group or Mix Output ..... < 0.005% @ 1kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) .. < -127.5dBu (150Ω source) Mix Bus Output Noise (24 ch. routed) ..... < -81dBu
Crosstalk (@ 1kHz)	Channel Muting and Channel Fader Attenuation ..... > 90dB Channel Routing ..... > 85dB Mono Input CMRR ..... -52dB @ 1kHz
Oscillator	63Hz to 10kHz / pink noise, variable level
Filter	HP 100Hz, 12dB/octave
EQ	HF ..... 1kHz - 16kHz, +/-15dB, Q = 1.5 or shelf Hi-Mid ..... 400Hz - 7kHz, +/-15dB, Q = 2.6 / 1.3 Lo-Mid ..... 70Hz - 1.1kHz, +/-15dB, Q = 2.6 / 1.3 LF ..... 27Hz - 500Hz, +/-15dB, Q = 1.5 or shelf
Metering	8-segment LED input metering with peak LED on all mono inputs 4-segment LED input metering with peak LED on all stereo inputs 20-segment LED bargraph meters monitor output levels Optional VU meterbridge for 24-channel k3 consoles and above
Power Consumption	450W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type CPS275

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max. Ground Comp Outputs ..... +21dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes, with VU meterbridge ..... 373.40mm (14.70") All frame sizes, without VU meterbridge ... 262.28mm (10.32")
Width	16 channel ..... 858mm (33.8") 24 channel ..... 1112mm (44.8") 32 channel ..... 1366mm (53.8") 40 channel ..... 1620mm (63.8") 48 channel ..... 1874mm (73.8")
Depth	All frame sizes ..... 795.80mm (31.33")
Weight	16 channel ..... 30 kg (66 lbs) 24 channel ..... 39 kg (86 lbs) 32 channel ..... 48 kg (106 lbs) 40 channel ..... 57 kg (126 lbs) 48 channel ..... 66 kg (146 lbs)

and installed

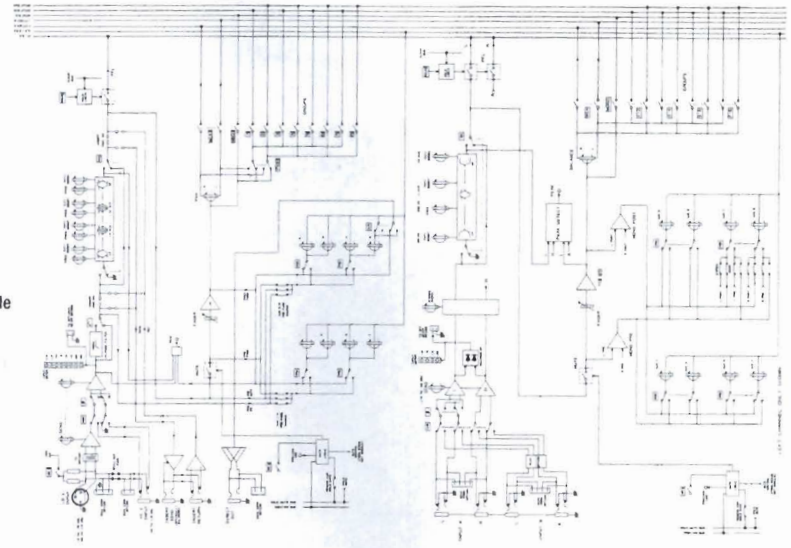
ternal devices

.....	+30dBu max.
.....	+21dBu max.
.....	+26dBu max.
.....	+21dBu max.
.....	2kΩ
.....	> 10kΩ
.....	50Ω
.....	< 75Ω
	373.40mm (14.70")
	262.28mm (10.32")
....	858mm (33.8")
...	1112mm (44.8")
...	1366mm (53.8")
...	1620mm (63.8")
...	1874mm (73.8")
	795.80mm (31.33")
.....	30 kg (66 lbs)
.....	39 kg (86 lbs)
....	48 kg (106 lbs)
....	57 kg (126 lbs)
....	66 kg (146 lbs)

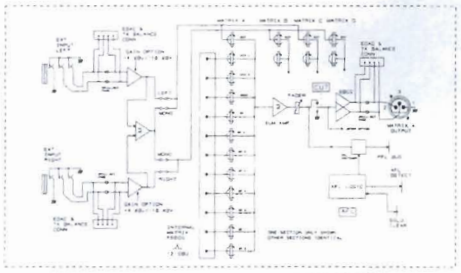
SYSTEM BLOCK DIAGRAMS

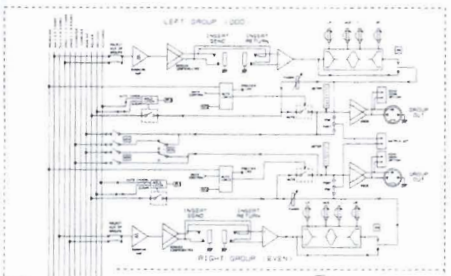
Input Module

Stereo Input Module

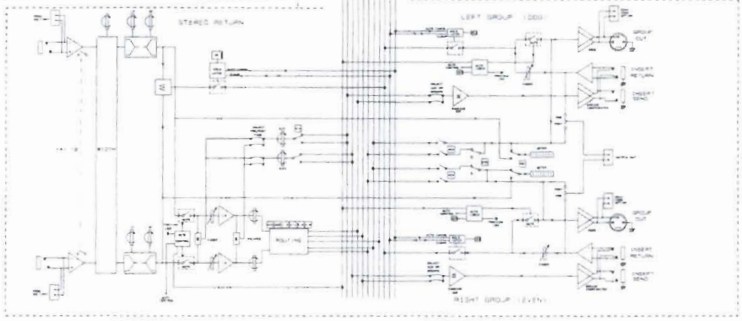


Quad Matrix Module

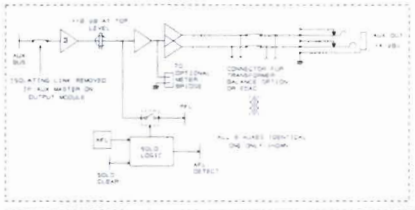


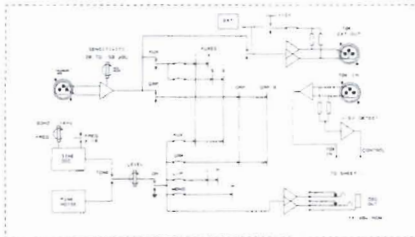


Dual Group / FX Return Module

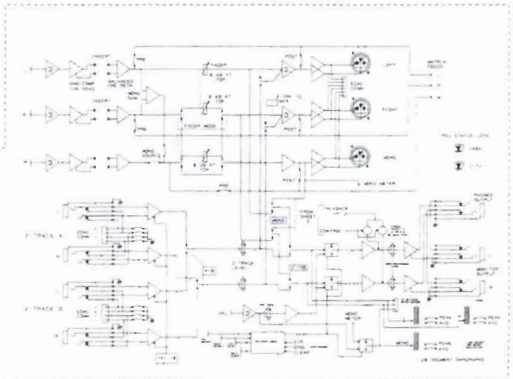


Aux Master Section

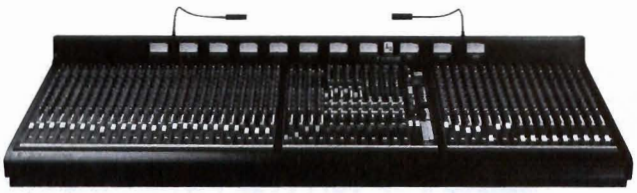




Master Module



k2



- Professional 8-bus sound reinforcement console for touring or fixed installations
- Available in 24, 32, 40 and 48 channel frame sizes
- 11 x 4 output matrix
- 8 stereo returns (four on full length strips)
- 8 mute groups plus MIDI control
- LED input metering and VU output metering
- 8 aux sends with external pre / post switching in pairs
- 4-band EQ with switchable Q and variable high-pass filter
- Monocoque frame combines lightness with strength and solidity

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	High Impedance In to Group or Mix Out ..... < 0.005% @ 1kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) .. < -127dBu (150Ω source) Mix Bus Output Noise (40 ch. routed) ..... < -80dBu
Crosstalk (@ 1kHz)	Channel Muting ..... > 90dB Channel Routing & Channel Fader Attenuation & Aux Send Attenuation . > 80dB Mono Input CMRR ..... -52dB @ 1kHz
Oscillator	63Hz to 10kHz / pink noise, variable level
Filter	HP ..... 20Hz - 400Hz, 12dB/octave
EQ	HF ..... 12kHz, +/-15dB Hi-Mid ..... 400Hz - 12kHz, +/-15dB, Q = 1.3 / 2.7 Lo-Mid ..... 40Hz - 1.2kHz, +/-15dB, Q = 1.3 / 2.7 LF ..... 60Hz, +/-15dB
Metering	Overbridge 8 VU Meters monitoring Group/Aux/FX Returns/Matrix & 3 VU Meters monitoring Left Mix/Right Mix & Mono (centre) Mix/PFL/AFL Mono Input ..... 8-LED bargraph + Peak LED Stereo Input ..... 8-LED bargraph + Peak LED
Power Consumption	450W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type CPS275

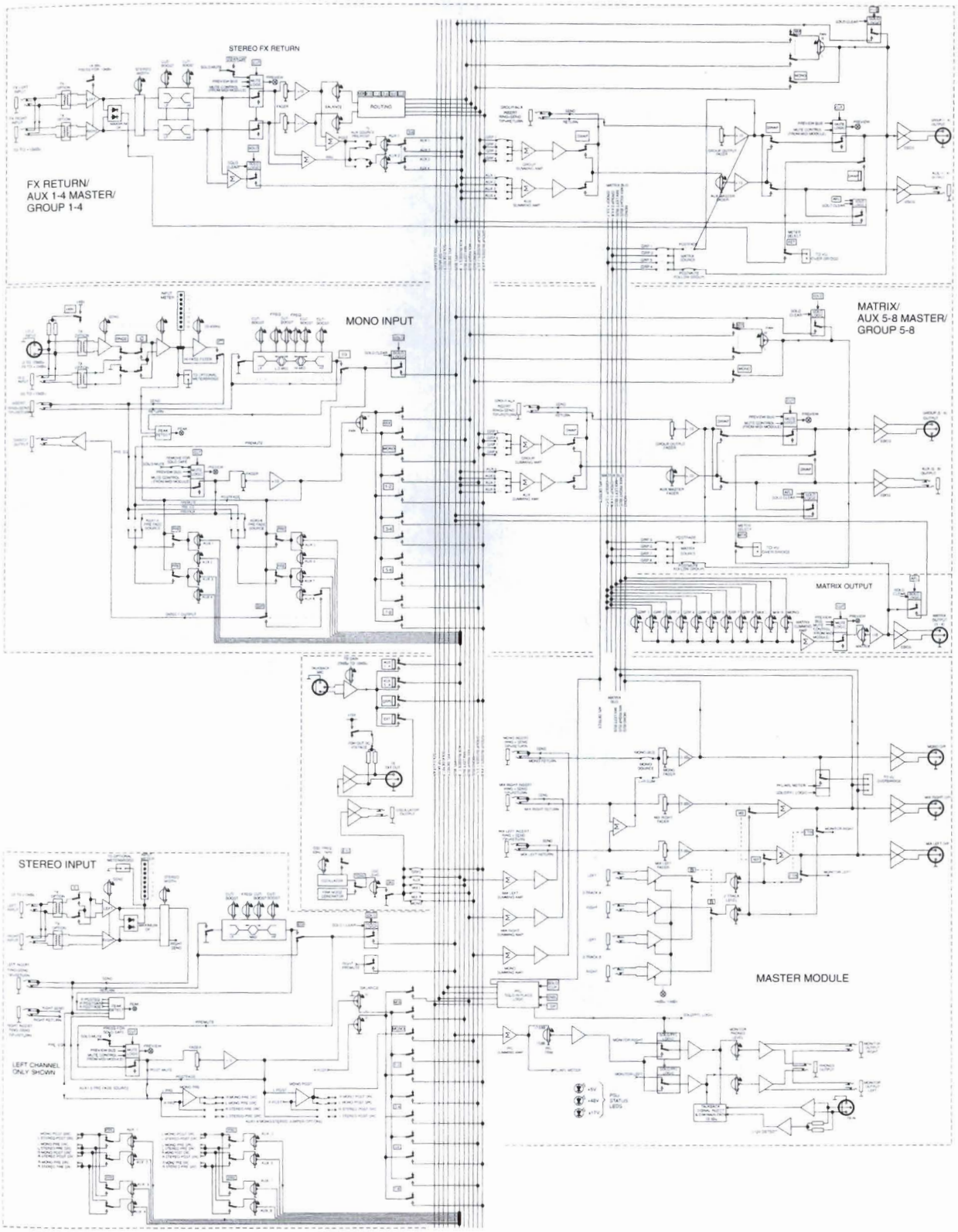
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max. Ground Comp Outputs ..... +21dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes ..... 274.55mm (10.81")
Width	24 channel ..... 1247mm (49.09") 32 channel ..... 1503mm (59.17") 40 channel ..... 1735mm (68.30") 48 channel ..... 1967mm (77.44")
Depth	All frame sizes ..... 776.82mm (30.58")
Weight	24 channel ..... 40 kg (88 lbs) 32 channel ..... 50 kg (110 lbs) 40 channel ..... 60 kg (132 lbs) 48 channel ..... 70 kg (154 lbs)

SYSTEM BLOCK DIAGRAM



Series TWO

- Highly flexible live performance console
- Classic 3-tier raked styling
- 24, 32 and 40 channel frame sizes
- Standard 8-bus, 8-aux structure

- 2 fully-featured stereo input channels included as standard
- 8 group outputs with stereo and mono master busses
- Built-in 11 x 2 output matrix
- 8 mute groups and MIDI muting
- 4-band EQ with two sweepable mids
- Sweepable high pass filtering on each mono channel
- LED bargraph input and output metering

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +4dBu)	XLR In to Mix Out ..... < 0.008% @ 1kHz
Noise	Mic Input E.I.N. (22Hz-22kHz, unweighted, 200Ω source) ... < -127dBu Residual Noise (Mix Out, no inputs routed, Mix fader @ 0dB) .... -88dBu Bus Noise (Mix Out, 40 ch. routed, input faders @ -∞, Mix fader @ 0dB) . -79dBu Bus Noise (Group Out, 40 ch. routed, input faders @ -∞, Mix fader @ 0dB) -80dBu
Crosstalk (@ 1kHz)	Input Channel Muting ..... 90dB Input Fader Cut-off 90dB
Oscillator	1kHz, routable to any combination of Aux 1-4, Mix+Mono, matrix 1 & matrix 2
Filter (Mono Input)	HP ..... 40Hz - 400Hz, 12dB/octave
EQ (Mono Input)	HF ..... 12kHz, +/-15dB Hi-Mid ..... 550Hz - 13kHz, +/-15dB, Q = 1.3 Lo-Mid ..... 80Hz - 1.9kHz, +/-15dB, Q = 1.3 LF ..... 60Hz, +/-15dB
Metering	12-segment bargraph meters for all input channels with peak hold facility 12-segment bargraph meters for the 8 group outputs, each side of the stereo mix bus and the mono bus (which switches to read PFL when required) Main L and R meters can be set to read monitor output
Power Consumption	175W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type DCP200

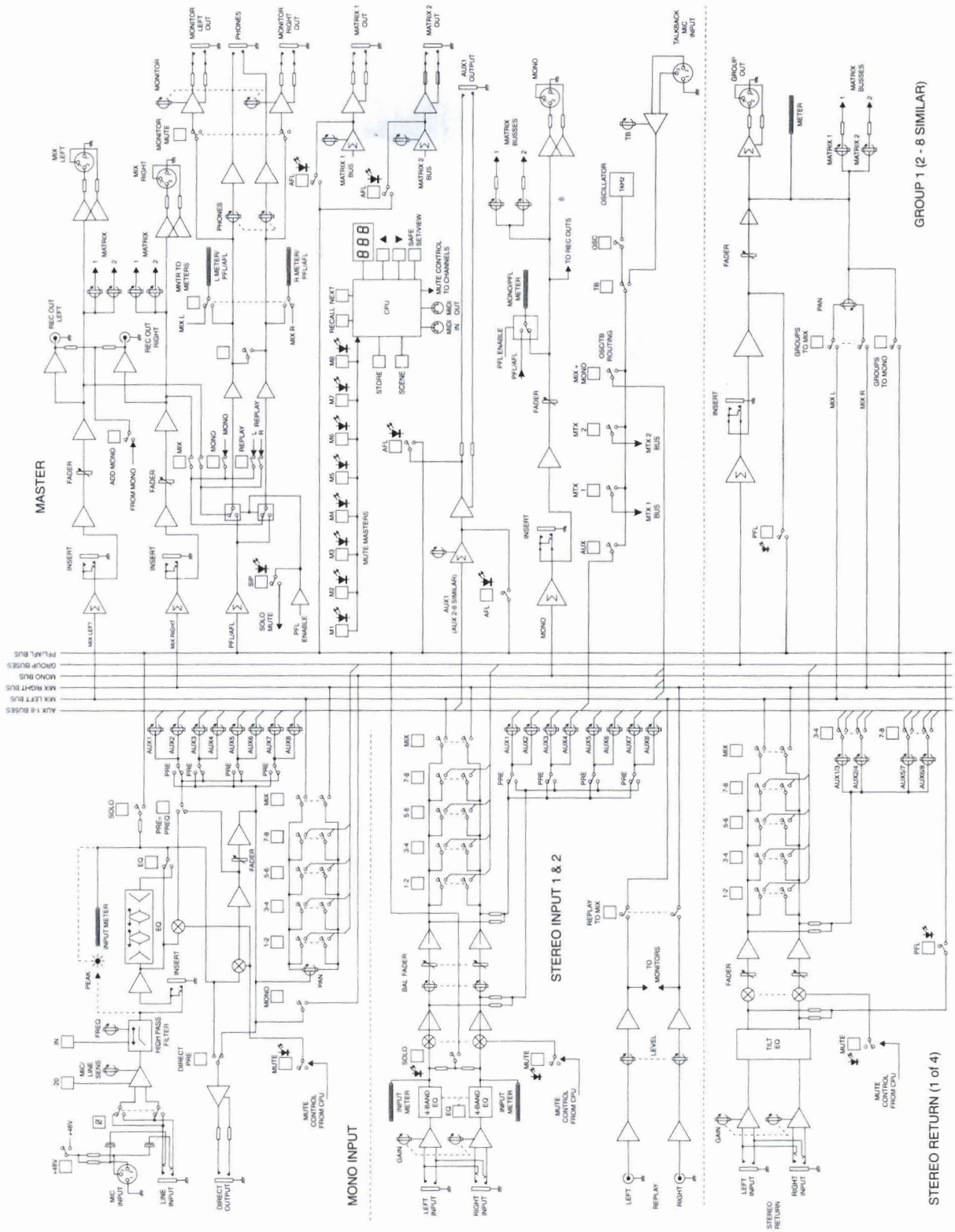
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +27dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max. Impedance Balanced Outputs ..... +21dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes ..... 255mm (10.03")
Width	24 channel ..... 1037mm (40.83") 32 channel ..... 1243mm (48.93") 40 channel ..... 1449mm (57.04")
Depth	All frame sizes ..... 716mm (28.18")
Weight	24 channel ..... 31 kg (68 lbs) 32 channel ..... 40 kg (88 lbs) 40 channel ..... 48 kg (106 lbs)

SYSTEM BLOCK DIAGRAM



k1

- Professional compact 4-bus sound reinforcement console
- Designed for installed and portable sound system use
- 8, 16, 24 or 32 free-standing frame sizes
- 8 channel rackmount version
- Mono or stereo inputs
- Four subgroups and six auxiliaries
- 4-band mid-sweep EQ
- Stereo inputs as standard
- Built-in output matrix
- Mono modules can be replaced with stereos in 4-way blocks

TYPICAL SPECIFICATIONS

Frequency Response	Any Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	Line In to Group or Mix Out ..... < 0.004% @ 1kHz < 0.02% @ 10kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) .. < -128.5dBu (150Ω source) Mix Noise (16 ch. routed) ..... < -84dBu
Crosstalk (@ 1kHz)	Mix to Group Output ..... > 90dB
Filter	HP 100Hz, 12dB/octave
EQ (Mono Input)	HF ..... 12kHz, +/-15dB Hi-Mid ..... 400Hz - 10kHz, +/-15dB, Q = 1.3 / 2.7 Lo-Mid ..... 60Hz - 1.5kHz, +/-15dB, Q = 1.3 / 2.7 LF ..... 60Hz, +/-15dB
Metering	Peak and signal LEDs on each input channel 4 12-segment peak-reading bargraph meters monitor group or matrix output
Power Consumption	99W (8 & 16 channel), 175W (24 & 32 channel)
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type ..... DCP125 (8 & 16 channel), DCP200 (24 & 32 channel)

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max. Ground Comp Outputs ..... +21dBu max.
Input & Output Impedances	Mic Input ..... 1.5kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

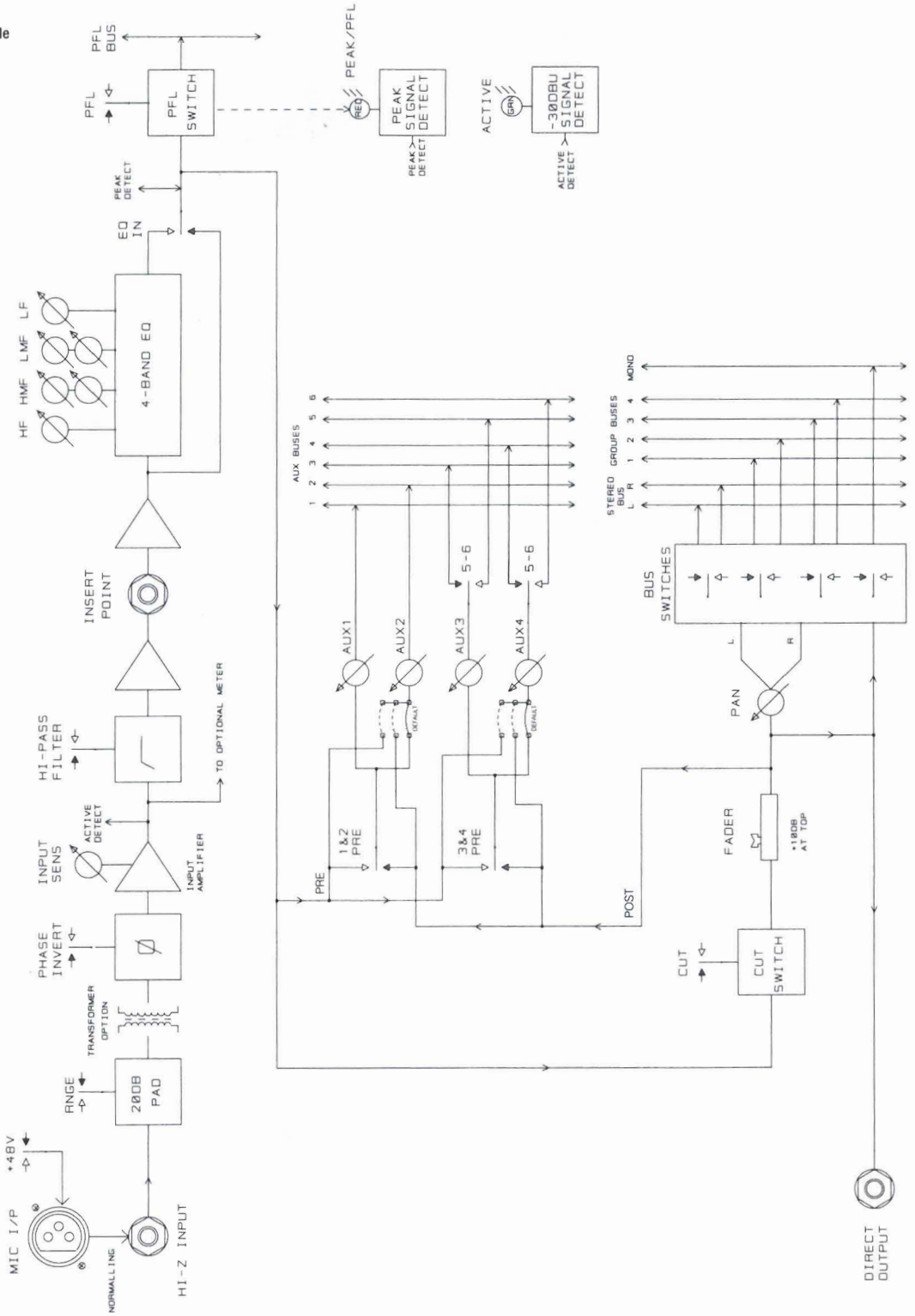
Height	All frame sizes ..... 196.8mm (7.75")
Width	8 channel ..... 461.1mm (18.15") 16 channel ..... 703.3mm (27.69") 24 channel ..... 945.5mm (37.22") 32 channel ..... 1187.7mm (46.76")
Depth	All frame sizes ..... 536.0mm (21.10")
Weight	8 channel ..... 13.4 kg (29.50 lbs) 16 channel ..... 19.2 kg (42.20 lbs) 24 channel ..... 25.0 kg (55.00 lbs) 32 channel ..... 30.8 kg (67.76 lbs)

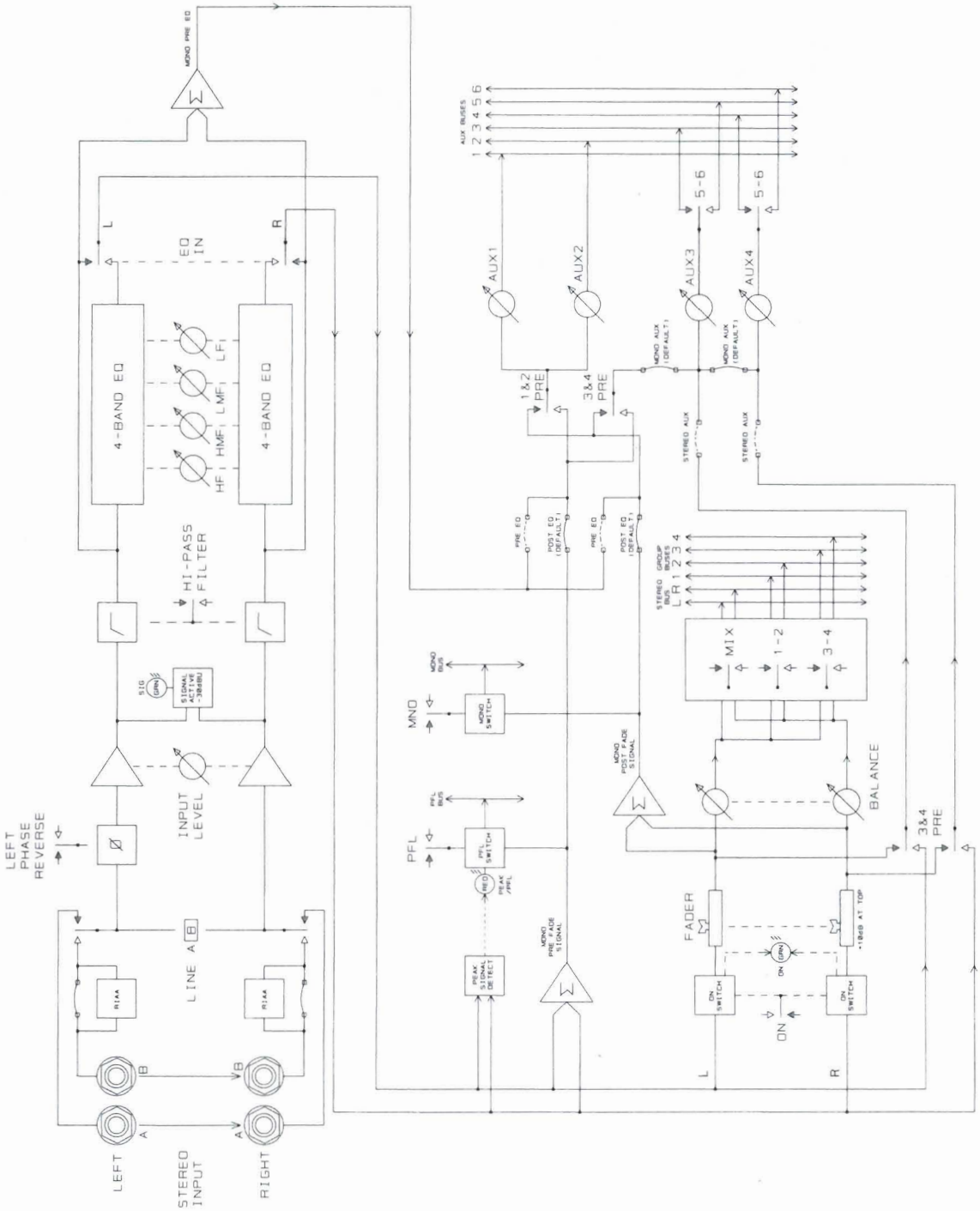
SYSTEM BL

Mono Input Module

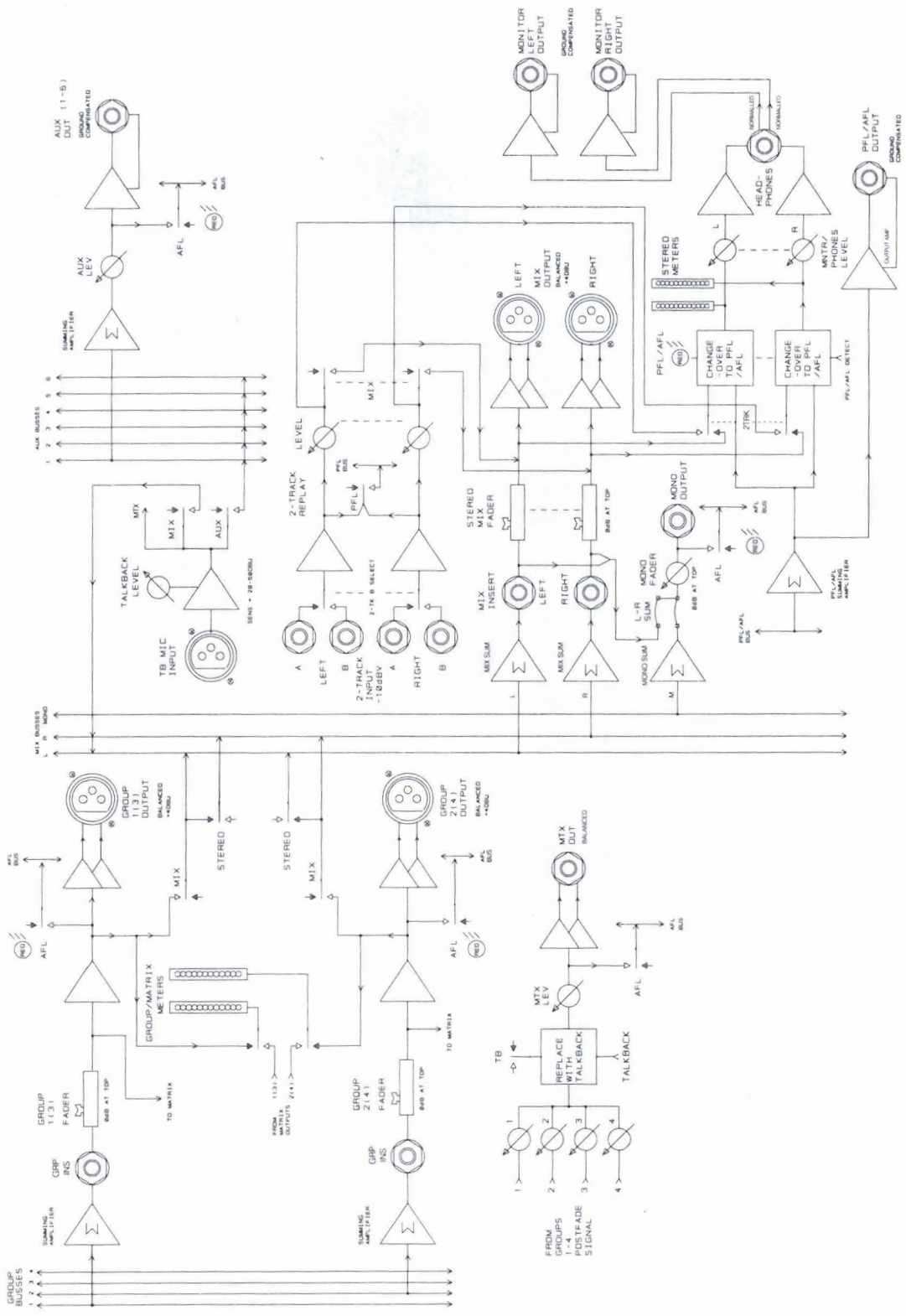
SYSTEM BLOCK DIAGRAM

Mono Input Module




MONO PRE EQ
L
R
EQ IN
4-BAND EQ
4-BAND EQ
HF
HMF
LMF
LF
HI-PASS FILTER
SIG (GRN)
SIGNAL ACTIVE -38dBu
INPUT LEVEL
LEFT PHASE REVERSE
LINE A B
RIAA
RIAA
LEFT
STEREO INPUT
RIGHT
AUX BUSES 1 2 3 4 5 6
AUX1
AUX2
AUX3
AUX4
5-6
5-6
1&2 PRE
3&4 PRE
MONO AUX (DEFAULT)
STEREO AUX
PRE EQ
POST EQ (DEFAULT)
STEREO GROUP BUS L R 1 2 3 4
MIX
1-2
3-4
MONO
MONO BUS
MONO SWITCH
PFL
PFL BUS
PFL SWITCH
PEAK PFL
PEAK SIGNAL DETECT
MONO POST FADE SIGNAL
MONO PRE FADE SIGNAL
BALANCE
FADER
ON SWITCH
ON (GRN)
+10dB AT TOP
3&4 PRE
L
R

Master Section



324 Live

- Compact digital mixer for Live Sound reinforcement
- 16 mic/line inputs plus 16 TDIF digital inputs
- AES/EBU and S/PDIF input and outputs
- 4 groups
- 4 matrices
- Left, right and mono busses
- Automation system tailored to live sound
- Comprehensive MIDI event list capability
- 16 MIDI continuous controllers on faders

TYPICAL SPECIFICATIONS

Frequency Response	+0/-1.5dB, 20Hz - 20kHz
Analogue to Digital Conversion	Mic / Line Inputs ..... 24-bit, 128x oversampling Stereo Inputs ..... 24-bit, 128x oversampling
Digital to Analogue Conversion	Mix Outputs ..... 24-bit, 128x oversampling Aux Outputs ..... 24-bit, 128x oversampling
Internal Processing	24-bit, 56-bit bussing
SRC	Sample Rate Conversion Range on Digital Inputs ..... 30kHz - 50kHz
Dynamic Range	Digital Input to Mix Output ..... 104dB Mic Input to Mix Output ..... 101dB Stereo Input to Mix Output 99dB
T.H.D.	Mic Input to Mix Output (@ +14dBu) ..... < 0.005% @ 1kHz
Noise	Mic E.I.N. ..... < -127dBu (150Ω source) Mix Output (Mix fader down) ..... < -86dBu Mix Output (Mix fader @ unity) ..... < -86dBu Mix Output (32 ch. routed, faders @ unity) ..... < -74dBu
Crosstalk	Input to Input ..... > 90dB Fader Attenuation ..... > 86dB Channel Mute Attenuation ..... > 86dB
Oscillator	Tone to STE1, DIG STE, FX1 or FX2
Filter	HP ..... 100Hz, 18dB octave
EQ	HF ..... 1kHz - 20kHz, +/-15dB, Q = 0.3 - 2.8, swept / shelving MF ..... 500Hz - 8kHz, +/-15dB, Q = 0.3 - 2.8 swept LF ..... 40Hz - 800Hz, +/-15dB, Q = 0.3 - 2.8, swept / shelving
Metering	16 x 10-segment peak-reading LED meters
Power Consumption	100W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type ..... Internal

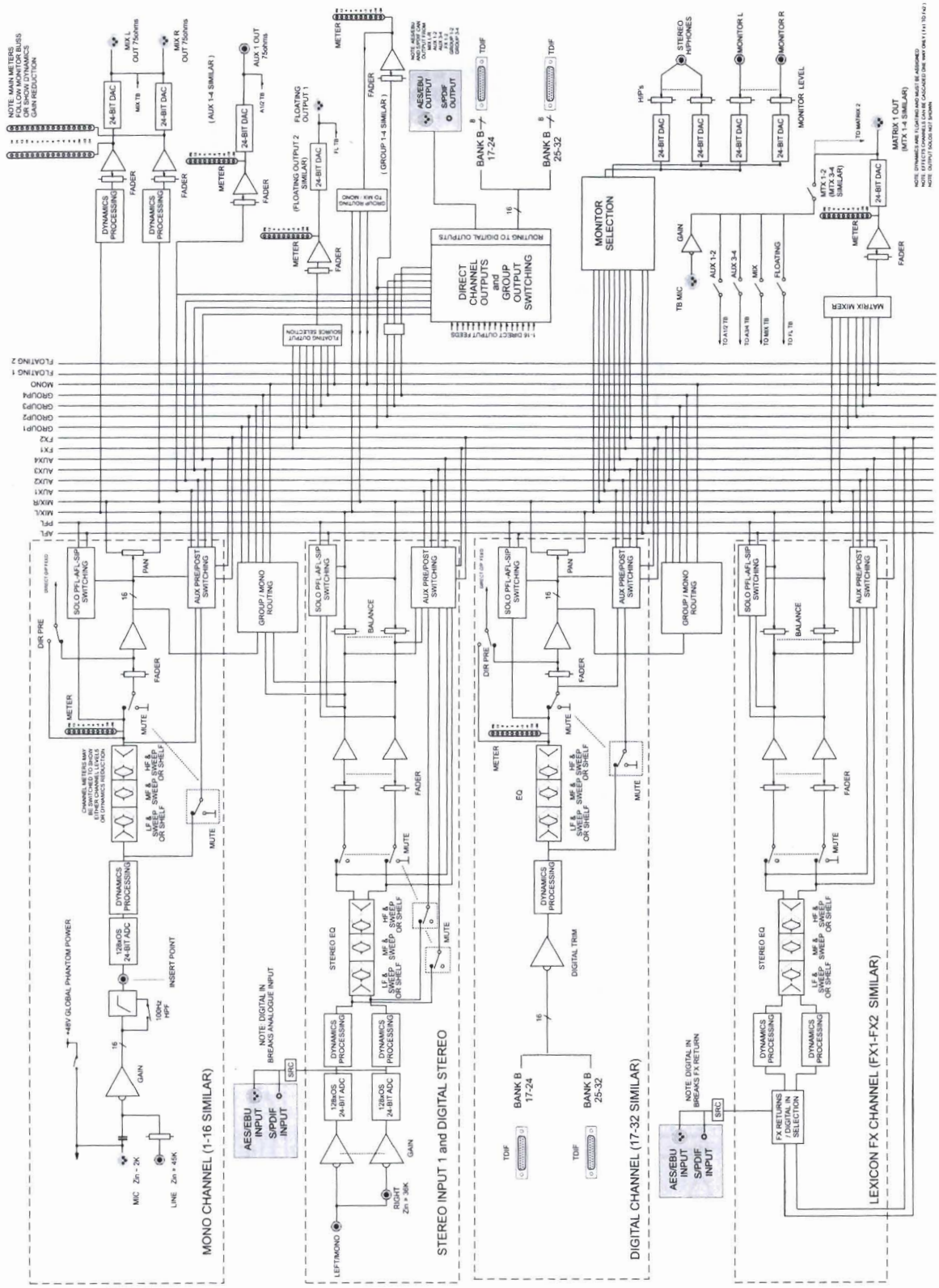
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +16dBu Balanced Inputs ..... > +30dBu Mix & Matrix Outputs ..... +22dBu All other Outputs ..... +18dBu
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... 45kΩ Headphone Output ..... 40Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	160mm (6.3")
Width	715mm (28.2")
Depth	537mm (21.1")
Weight	14.4 kg (31.7 lbs)

SYSTEM BLOCK DIAGRAM



+16dBu
> +30dBu
+22dBu
+18dBu

2kΩ
45kΩ
40Ω
75Ω

Spirit 8

- Fully-featured 8-bus mixing console, combining a range of professional control and routing facilities with compact design
- Four frame sizes available, from 16 to 40 channels
- Up to 56 inputs
- 8 group busses
- UltraMic+ preamp with up to 66dB gain range
- +48V phantom power, individually switchable on each channel
- 4-band EQ with two swept mid bands
- 4 mute groups
- Additional outputs on 10 x 2 matrix

TYPICAL SPECIFICATIONS

Frequency Response	Line In to Mix Out via Group (longest path) ..... -1dB, 25Hz - 20kHz
T.H.D.	-10dBu Input routed to Mix +20dBu out ..... < 0.005% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Mix (32 mono & 4 stereo inputs routed to Mix, faders @ unity) .. -81dBu Mix (32 mono & 4 stereo inputs routed to Mix, faders down) .... -95dBu Aux (32 mono & 4 stereo inputs routed, O/P @ max, faders down) -86dBu Direct Output (input to post-fade output @ unity gain) ..... -90dBu Direct Output (input to post-fade output @ 40dB gain) ..... -81dBu Matrix Output (output @ max, sends down) ..... -93dBu
Crosstalk (@ 1kHz)	Fader Attenuation to Direct Output ..... 92dB @ 1kHz, 80dB @ 10kHz Fader Attenuation to Mix (36 ch. routed) .. 94dB @ 1kHz, 89dB @ 10kHz Fader Attenuation to Mix (1 ch. routed) .. 101dB @ 1kHz, 89dB @ 10kHz Typical Aux Attenuation ..... 88dB @ 1kHz, 83dB @ 10kHz Pan Isolation (36 ch. to Mix) ..... 76dB @ 1kHz, 68dB @ 10kHz Adjacent Channel Crosstalk ..... 99dB @ 1kHz, 95dB @ 10kHz Routing Isolation ..... 86dB @ 1kHz, 86dB @ 10kHz Mute Offness ..... 104dB @ 1kHz, 88dB @ 10kHz Typical CMRR at medium gain (50Hz - 10kHz) ..... > 80dB Typical CMRR at high gain (50Hz - 10kHz) ..... > 85dB
Filter	HP 100Hz, 18dB/octave
EQ	HF ..... 13kHz, +/-15dB Hi-Mid ..... 550Hz - 13kHz, +/-15dB Lo-Mid ..... 80Hz - 1.9kHz, +/-15dB LF ..... 80Hz, +/-15dB
Metering	Integral meterbridge with 12-segment LED bargraph
Power Consumption	99W (16 channel), 175W (24, 32 & 40 channel)
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type ..... DCP125 (16 channel), DCP200 (24, 32 & 40 channel)

INPUT / OUTPUT SPECIFICATIONS

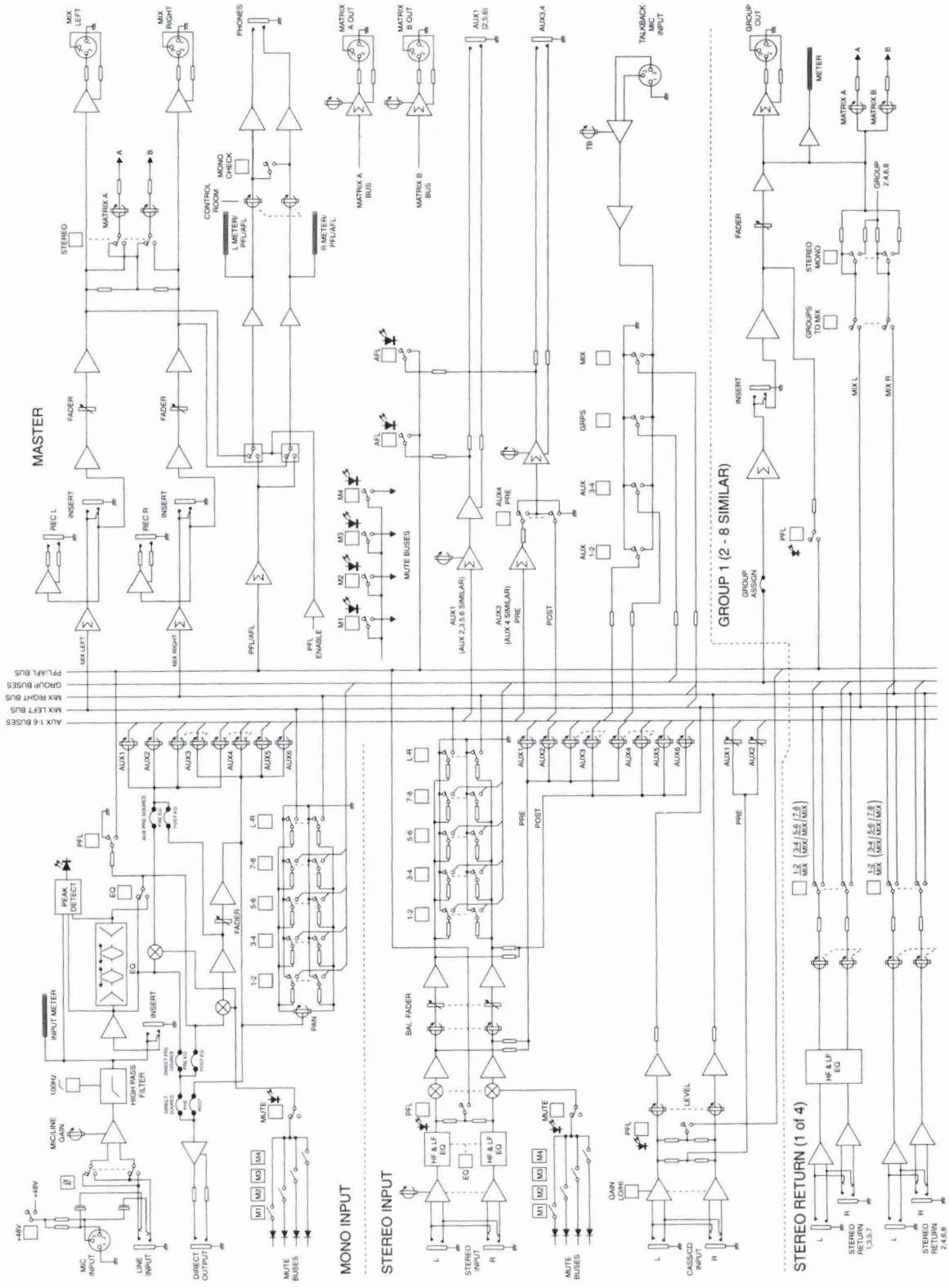
Input & Output Levels	Mic/Line Input ..... +28dBu max. Stereo Input ..... +25dBu max. Cassette / CD Input ..... +18dBu max. Stereo Return ..... +22dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes ..... 178mm (7")
Width	16 channel ..... 875mm (34.5") 24 channel ..... 1114mm (44.0") 32 channel ..... 1347mm (53.0") 40 channel ..... 1581mm (62.3")
Depth	All frame sizes ..... 685mm (26")
Weight	16 channel ..... 29.6 kg (65 lbs) 24 channel ..... 38.2 kg (84 lbs) 32 channel ..... 45.6 kg (100 lbs) 40 channel ..... 53.6 kg (118 lbs)

Soundc

SYSTEM BLOCK DIAGRAM



GB4

- 12, 16, 24, 32 and 40 channel frame sizes
- GB30 mic preamp and precision equalisation circuitry
- 15 busses
- 2 full feature stereo channels
- 2 stereo returns
- Direct outputs on every channel
- Talkback facility
- 100mm faders
- Switchable 48V phantom powering on every channel
- 8 Aux sends (4 of which are pre/post switchable)
- 18dB/octave high pass filter
- 4 sub groups
- 4 mute groups
- 7x4 output matrix
- 12-segment LED metering
- Record output with limiter

TYPICAL SPECIFICATIONS

Frequency Response	Mic/Line Input to any output ..... 20Hz - 20kHz, < 1dB
T.H.D.	Mic sens. -30dBu, +20dBu at all outputs ..... < 0.006% @ 1kHz
Noise	Measured RMS, 22Hz to 22kHz Bandwidth Mic Input E.I.N. @ unity gain ..... < -128dBu (150Ω source) Mix Output, 40 inputs routed to mix ..... < -82dBu Group Outputs ..... < -83dBu Aux Outputs ..... < -80dBu Matrix Outputs ..... < -89dBu
Crosstalk (@ 1kHz)	Input channel muting ..... < -97dB Input fader cutoff ..... < -95dB Input pan pot isolation ..... < -77dB Mix routing isolation ..... < -97dB Group routing isolation ..... < -97dB Adjacent channel isolation ..... < -99dB Group-Mix crosstalk ..... < -89dB Aux send off ..... < -84dB Matrix send off ..... < -89dB Typical CMRR at max gain @ 1kHz 80dB
Filter	HP (mono input) 100Hz, 18dB/octave
EQ	HF ..... 13kHz, +/-15dB, 2nd order shelving Hi-Mid ..... 550Hz - 13kHz, +/-15dB, Q=1.5 Lo-Mid ..... 80Hz - 1.9kHz, +/-15dB, Q=1.5 LF ..... 80Hz, +/-15dB, 2nd order shelving
Metering	Input channels ..... Single tri-colour 4-segment LED bargraph Output channels ..... 7 tri-colour 12-segment LED bargraphs
Power	AC mains supply (internal PSU) 85V-270V AC, 50/60Hz universal input Power consumption ..... Less than 150W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

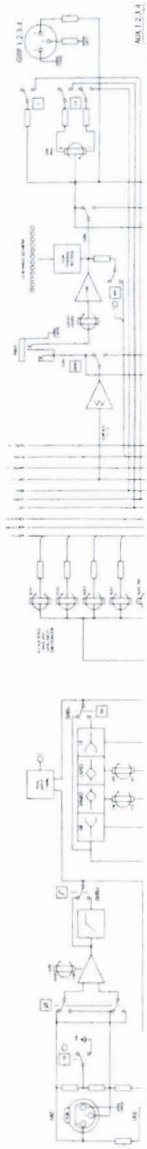
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mono & Stereo Mic Inputs ..... +15dBu max. Mono & Stereo Line Inputs ..... +30dBu max. Stereo Inputs & Insert Returns ..... +20dBu max. All Outputs ..... +20dBu max. Nominal operating level ..... 0dBu max. Headphone power ..... 2 x 250mW into 200Ω phones
Input & Output Impedances	Mic Input ..... 2kΩ Line Inputs and Stereo Returns ..... 10kΩ Input Channel Insert Return ..... 5kΩ (with EQ in, otherwise worst case 3kΩ Mix, Group, Aux, Matrix & Direct outputs ..... 150Ω Insert Sends ..... 75Ω Recommended headphone impedance 50-600Ω

DIMENSIONS & WEIGHT

Height	All frame sizes ..... 159mm (6.26")
Width	12 channel ..... 730mm (28.73") 16 channel ..... 842mm (33.13") 24 channel ..... 1065mm (41.93") 32 channel ..... 1300mm (51.17") 40 channel ..... 1523mm (59.96")
Depth	All frame sizes ..... 656mm (25.83")
Weight	12 channel ..... 20 kg (44.1 lbs) 16 channel ..... 22 kg (48.5 lbs) 24 channel ..... 27 kg (59.5 lbs) 32 channel ..... 32 kg (70.5 lbs) 40 channel ..... 37 kg (81.6 lbs)

SYSTEM BLO



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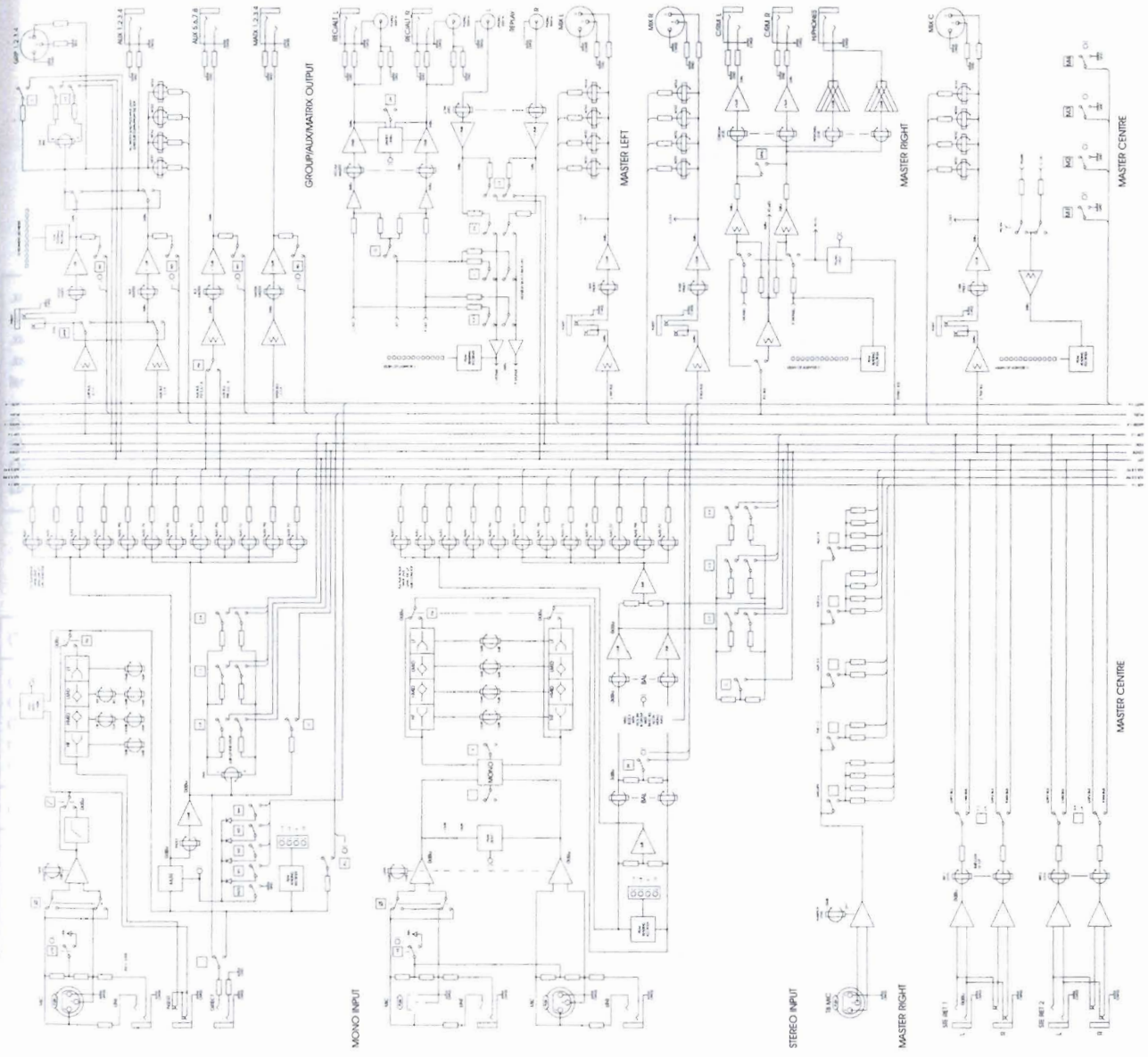
el

.....	+15dBu max.
.....	+30dBu max.
.....	+20dBu max.
.....	+20dBu max.
.....	0dBu max.
	)mW into 200Ω phones
.....	2kΩ
.....	10kΩ
	ł (with EQ in, otherwise worst case 3kΩ
.....	150Ω
.....	75Ω
.....	50-600Ω

....	159mm (6.26")
...	730mm (28.73")
...	842mm (33.13")
..	1065mm (41.93")
..	1300mm (51.17")
..	1523mm (59.96")
...	656mm (25.83")
....	20 kg (44.1 lbs)
....	22 kg (48.5 lbs)
....	27 kg (59.5 lbs)
....	32 kg (70.5 lbs)
....	37 kg (81.6 lbs)

SYSTEM BLOCK DIAGRAM



Spirit Live 4²

- 4-bus professional mixing console
- Available in 12, 16, 24, 32 and 40 channel frame sizes
- Up to 56 inputs - 40 mono, 8 stereo
- 4-bus architecture
- UltraMic+ preamp with up to 66dB gain range
- 48V phantom power, individually switchable on each channel
- 4-band EQ with two swept mid bands
- Full-size 100mm faders

TYPICAL SPECIFICATIONS

Frequency Response	20Hz - 20kHz ..... -1dB
T.H.D.	-10dBu Input routed to Mix +20dBu out ..... < 0.006% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Mix (26 inputs routed to Mix, faders @ unity, muted) ..... -82dBu Mix (26 inputs routed to Mix, mix faders down) ..... -97dBu Aux (26 inputs routed, O/P @ max, faders down) ..... -84dBu Input to Direct Output @ unity gain ..... -87dBu Input to Direct Output @ 40dB gain ..... -77dBu Matrix Output @ max, sends down ..... -95dBu
Crosstalk (Wideband)	Typical Channel Fader Attenuation ..... > 80dB Typical Aux Attenuation ..... > 80dB Typical Pan Isolation ..... > 70dB Adjacent Channel Crosstalk ..... > 85dB, 100dB @ 1kHz Typical CMRR at max gain @ 1kHz ..... -85dB Typical CMRR at any gain @ 50Hz ..... -65dB
Filter	HP 100Hz, 18dB/octave
EQ	HF ..... 12kHz, +/-15dB Hi-Mid ..... 550Hz - 13kHz, +/-15dB Lo-Mid ..... 80Hz - 1.9kHz, +/-15dB LF ..... 80Hz, +/-15dB
Metering	Two peak-reading, 12-segment bargraphs display mix levels Switchable to read solo levels if any solo is activated
Power Consumption	99W (12, 16 & 24 channel), 100W (32 channel), 400W (40 channel)
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type .. DCP125 (12, 16 & 24 ch.), CPS150 (32 ch.) & CPS450 (40 ch.)

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic/Line Input ..... +28dBu max. Stereo Input ..... +25dBu max. Cassette / CD Input ..... +18dBu max. Stereo Return ..... +22dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

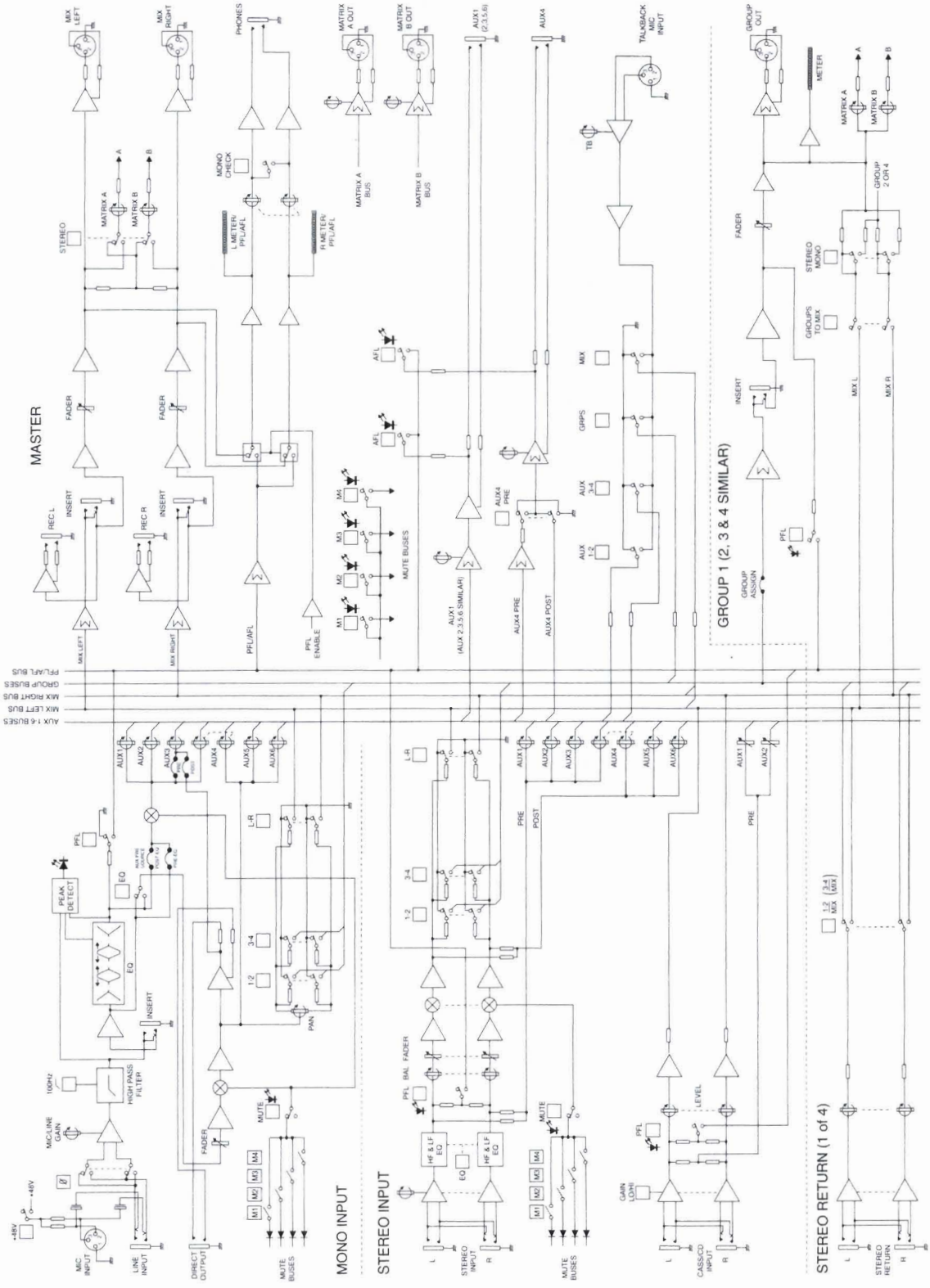
Height	All frame sizes ..... 87.5mm (3.44")
Width	12 channel ..... 685mm (27.0") 16 channel ..... 845mm (33.3") 24 channel ..... 1101mm (43.3") 32 channel ..... 1362mm (53.6") 40 channel ..... 1616mm (63.6")
Depth	All frame sizes ..... 590.5mm (23.44")
Weight	12 channel ..... 17.4 kg (38.3 lbs) 16 channel ..... 21.4 kg (47.1 lbs) 24 channel ..... 28.0 kg (61.6 lbs) 32 channel ..... 34.8 kg (76.6 lbs) 40 channel ..... 41.8 kg (92.0 lbs)

sizes

ch channel

.....	+28dBu max.
.....	+25dBu max.
.....	+18dBu max.
.....	+22dBu max.
u max., +4dBu nominal	
.....	1.8kΩ
.....	> 10kΩ
.....	75Ω
.....	75Ω
....	87.5mm (3.44")
.....	685mm (27.0")
.....	845mm (33.3")
....	1101mm (43.3")
....	1362mm (53.6")
....	1616mm (63.6")
..	590.5mm (23.44")
...	17.4 kg (38.3 lbs)
...	21.4 kg (47.1 lbs)
...	28.0 kg (61.6 lbs)
...	34.8 kg (76.6 lbs)
...	41.8 kg (92.0 lbs)

SYSTEM BLOCK DIAGRAM



LX7ii

- 7-bus professional mixing console
- 16, 24 and 32 channel frame sizes
- GB30 mic preamp and precision equalisation circuitry
- 48V phantom power
- True 7-bus architecture
- Channel direct outputs
- Talkback facility
- Full-size 100mm faders
- Integral universal voltage, switched-mode PSU for light weight

TYPICAL SPECIFICATIONS

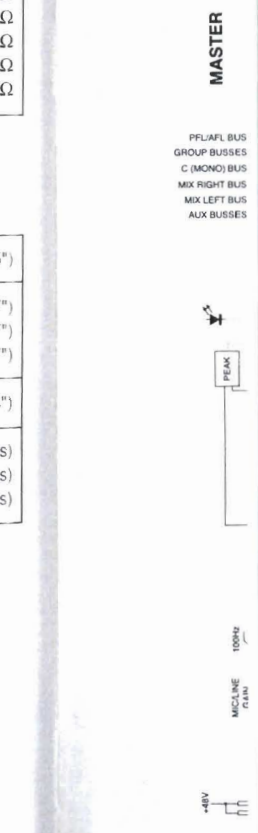
Frequency Response	XLR input to any Output ..... 20Hz - 20kHz, +0/-1dB
T.H.D.	All measurements at +10dBu output, 30dB gain XLR input to Direct output ..... < 0.007% @ 1kHz XLR input to Mix output ..... < 0.008% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... <-128dBu (150Ω source) Mix (32 ch. routed to mix, faders down, 22Hz - 22kHz) ..... < -85dBu Group (32 ch. routed to mix, faders down, 22Hz - 22kHz) .... < -85dBu Aux (32 ch. routed to mix, faders down, 22Hz - 22kHz) ..... < -88dBu
Crosstalk (@ 1kHz)	Input channel muting ..... > 98dB Input fader cutoff ..... > 98dB Input pan pot isolation ..... > 82dB Mix routing isolation ..... > 98dB Group routing isolation ..... > 98dB Adjacent channel isolation ..... > 100dB Group-Mix crosstalk ..... < -84dB Aux send off ..... < -94dB Typical CMRR at max gain @ 1kHz 80dB
Filter	HP (mono input) 100Hz, 18dB/octave
EQ	HF ..... 13kHz, +/-15dB, 2nd order shelving Hi-Mid ..... 550Hz - 13kHz, +/-15dB, Q=1.5 Lo-Mid ..... 80Hz - 1.9kHz, +/-15dB, Q=1.5 LF ..... 80Hz, +/-15dB, 2nd order shelving
Metering	6 tri-colour 12-segment LED bargraphs
Power	AC mains supply (internal PSU) 85V-270V AC, 50/60Hz universal input Power consumption ..... Less than 50W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

INPUT / OUTPUT SPECIFICATIONS

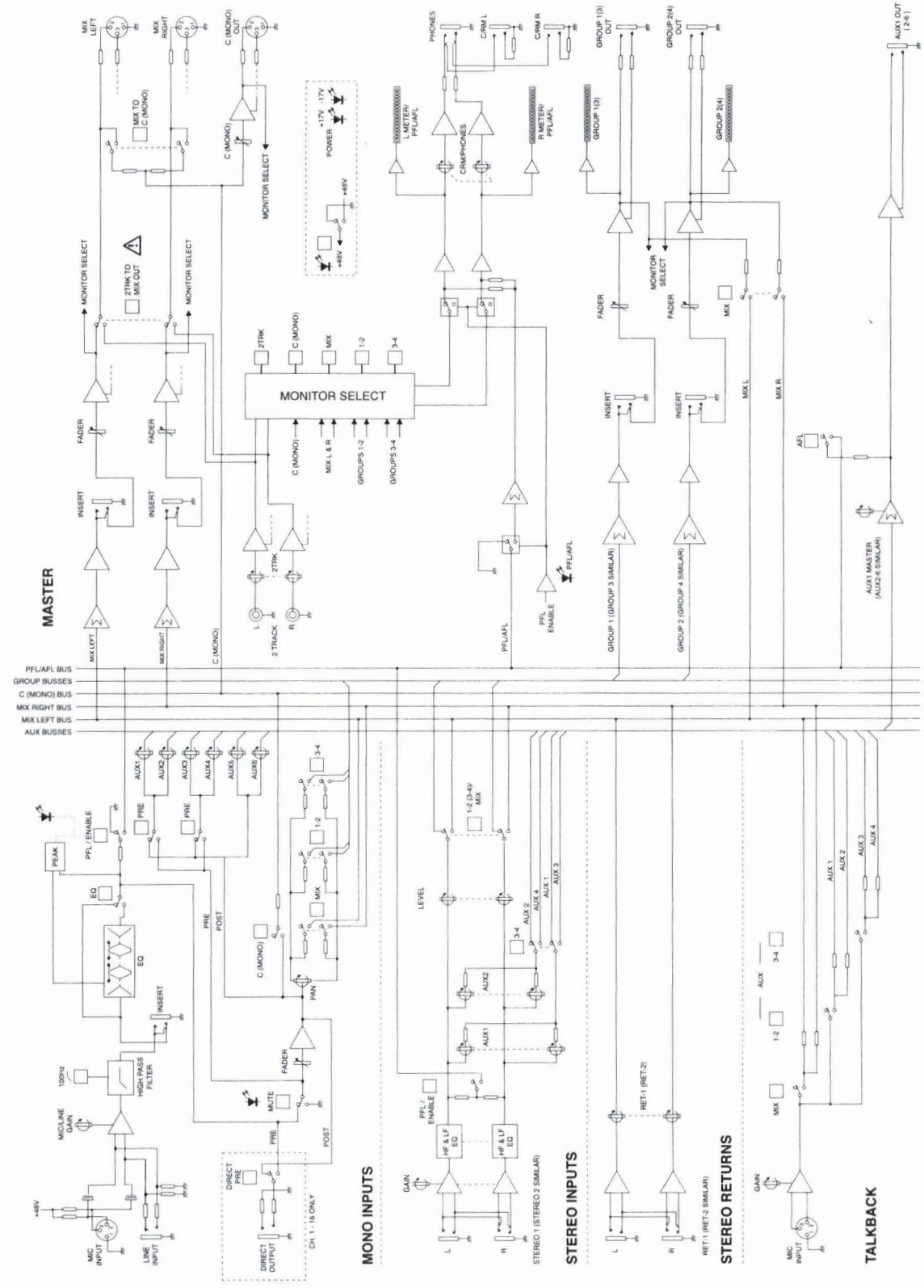
Input & Output Levels	Mic Input ..... +15dBu max. Line Input ..... +30dBu max. Stereo Inputs & Insert Returns ..... +20dBu max. All Outputs ..... +20dBu max. Nominal operating level ..... 0dBu max. Headphone power ..... 2 x 250mW into 200Ω phones
Input & Output Impedances	Mic Input ..... 2kΩ Line Inputs ..... > 10kΩ Input Channel Insert Return ..... 5kΩ (with EQ in, otherwise worst case 1.8kΩ Mix, Group, Aux Outputs ..... 150Ω Insert Sends ..... 75Ω Recommended headphone impedance 50-600Ω

DIMENSIONS & WEIGHT

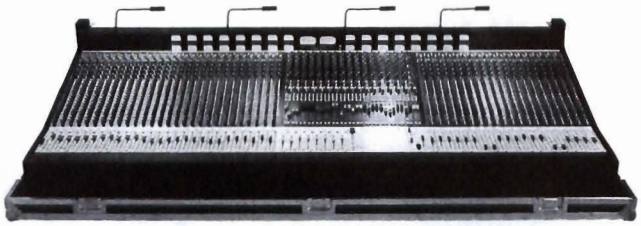
Height	All frame sizes* ..... 164mm (6.5")
Width	16 channel ..... 653mm (25.7") 24 channel ..... 856mm (33.7") 32 channel ..... 1059mm (41.7")
Depth	All frame sizes ..... 503mm (19.8")
Weight (packed)	16 channel ..... 18.2 kg (40.0 lbs) 24 channel ..... 21.8 kg (48.0 lbs) 32 channel ..... 25.4 kg (56.0 lbs)



SYSTEM BLOCK DIAGRAM



FIVE Monitor



- Dedicated monitor mixing console
- 40 - 60 channel frame sizes
- Choice of 24 or 32-bus output structures
- MIDI messaging to BSS FPC-900 Varicurve™ Remote for instant control of outboard EQ
- Optional stereo mic/line inputs with full EQ
- Built-in 23 x 12 or 23 x 16 output matrix
- 8 VCA groups and 8 mute groups
- 4-band fully parametric EQ on both mono and stereo inputs
- Sweepable filters on all input channels
- A and B XLR inputs for every channel
- Input metering on every channel
- Optional parametric EQ output module
- Two separate solo systems suitable for feeding a number of different systems - such as wedges and in-ear
- Sends can be globally configured as mono or stereo
- Compact, lightweight frame designed to withstand touring
- Rugged power supply with three year warranty

TYPICAL SPECIFICATIONS

Frequency Response	Any Input to any Output ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	Line In to Direct Out (VCA Out) ..... < 0.006% @ 1kHz Line In to Direct Out (VCA In) ..... < 0.02% @ 1kHz Line In to Mix Out (VCA Out) ..... < 0.008% @ 1kHz
Noise	Mic Input E.I.N. (22Hz - 22kHz, unweighted) . < -127dBu (150Ω source) Group Output Residual Noise ..... < -92dBu Mix Output Noise (32 ch. routed) ..... < -80dBu Grp Output Noise (32 ch. routed) ..... < -80dBu
Crosstalk (@ 1kHz)	Input Channel Muting ..... > 90dB Input Channel Fader Isolation ..... > 90dB Input Send Pot Routing Isolation ..... > 90dB Group to Group Crosstalk ..... < -90dB Group to Mix Crosstalk ..... < -90dB Mono Input CMRR, A or B inputs ..... -60dB @ 1kHz
Oscillator	63Hz to 10kHz / pink noise, variable level
Filters (Mono Input)	HP ..... 20 - 600Hz, 12dB/octave LP ..... 1kHz - 20kHz, 12dB/octave
EQ (Mono Input)	HF ..... 1kHz - 20kHz, +/-15dB, Q = 0.5 - 3.0 or shelf Hi-Mid ..... 500Hz - 8kHz, +/-15dB, Q = 0.5 - 3.0 Lo-Mid ..... 70Hz - 1.5kHz, +/-15dB, Q = 0.5 - 3.0 LF ..... 30Hz - 480Hz, +/-15dB, Q = 0.5 - 3.0 or shelf
Metering	Overbridge ..... 16 VU Meters monitoring Output or Matrix & 2 VU Meters monitoring Left and Right wedge mixes + Peak LEDs Mono Input ..... 9-LED bargraph + Peak LED Stereo Input ..... 2 x 4-LED bargraph + Peak LED
Power Consumption	980W (40 - 52 channel), 1960W (52 & 60 channel)
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type ..... CPS2000 (2 required on 56 channel)

INPUT / OUTPUT SPECIFICATIONS

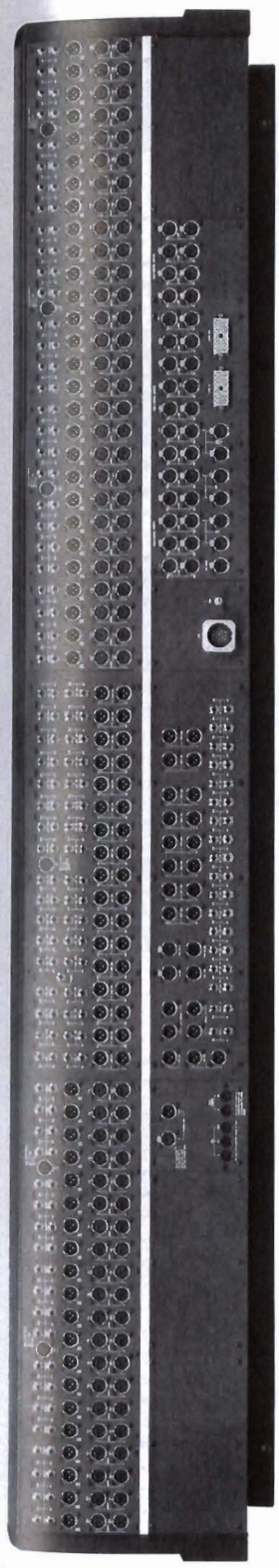
Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

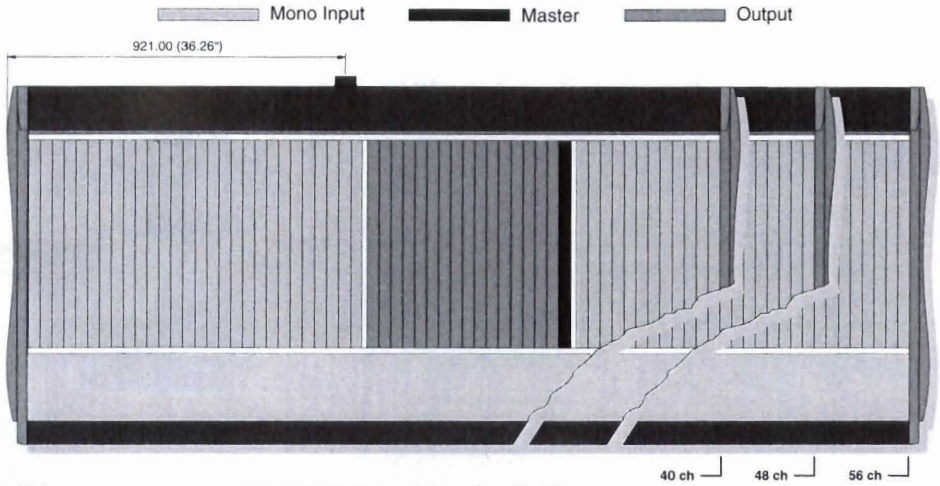
DIMENSIONS & WEIGHT

Height	All frame sizes ..... 388.70mm (15.30")
Width	24-bus 44 channel / 32-bus 40 channel 2007.80mm (79.05") 24-bus 52 channel / 32-bus 48 channel 2269.80mm (89.36") 24-bus 60 channel / 32-bus 56 channel 2531.80mm (99.67")
Depth	All frame sizes ..... 914.00mm (35.98")
Weight	24-bus 44 channel / 32-bus 40 channel .... 156 kg (343 lbs) 24-bus 52 channel / 32-bus 48 channel .... 170 kg (374 lbs) 24-bus 60 channel / 32-bus 56 channel .... 185 kg (407 lbs)

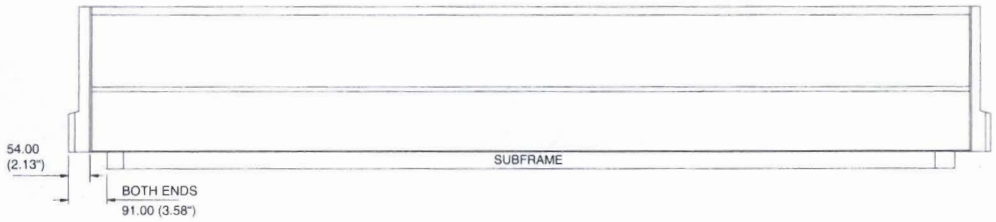
REAR PANEL

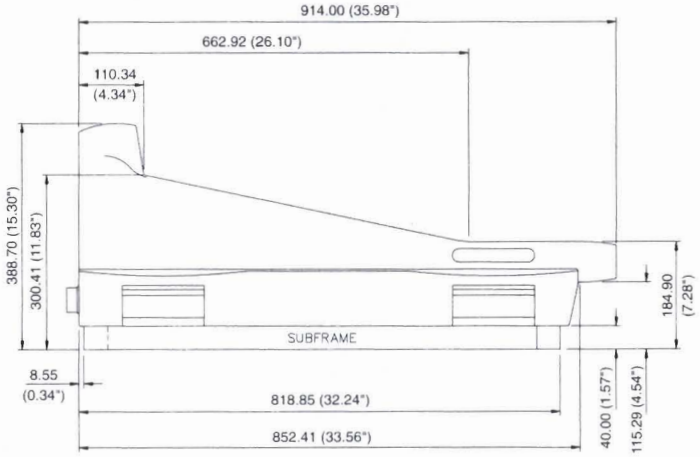
REAR PANEL CONNECTIONS & DIMENSIONS





32-bus console shown. 24-bus version has 4 output modules replaced by 4 inputs.





reo inputs

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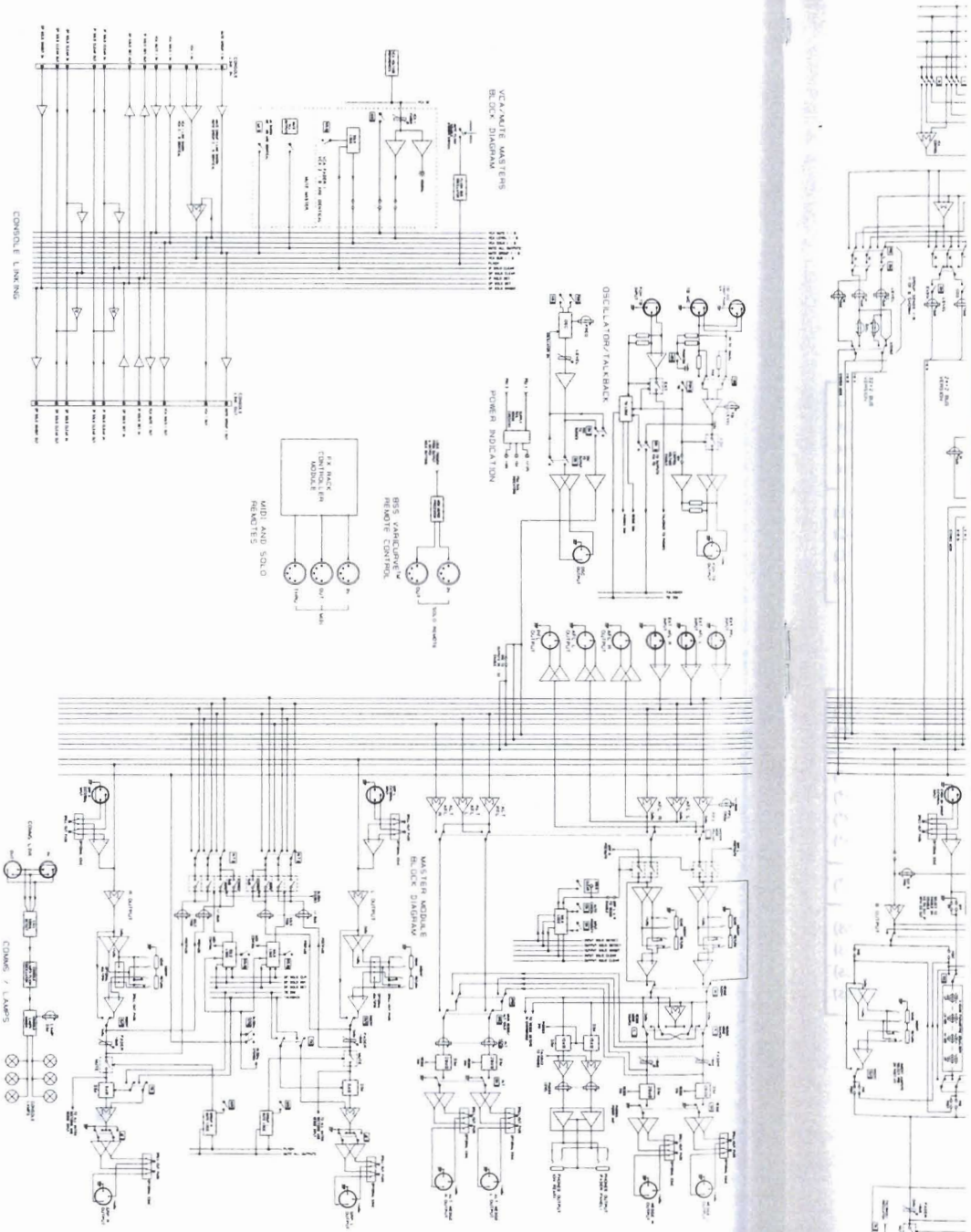
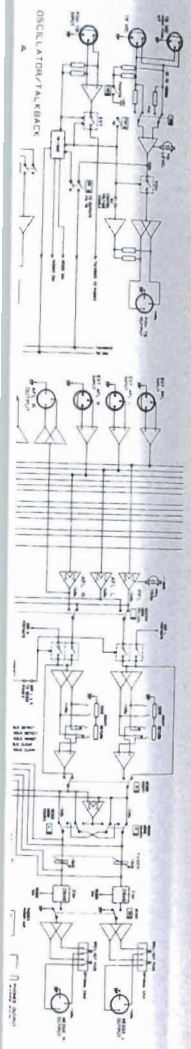
touring

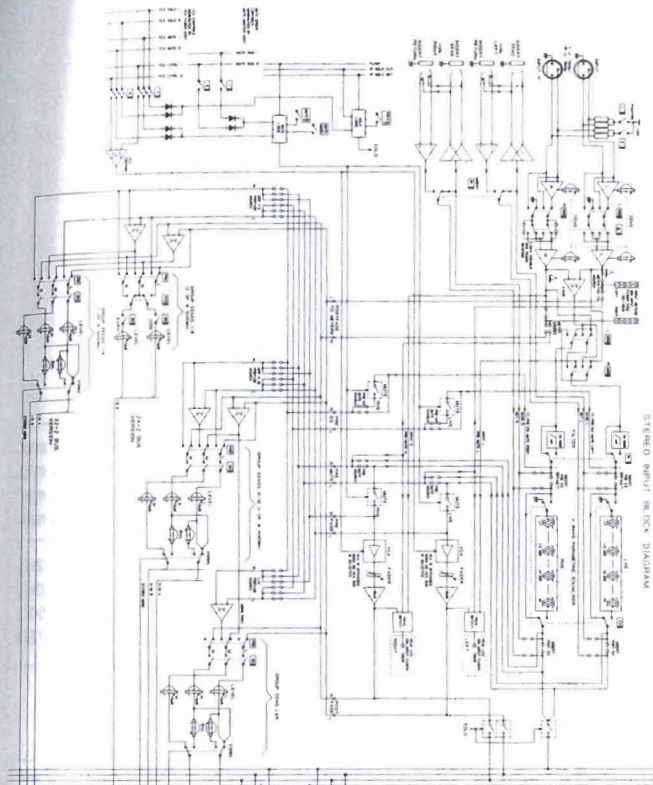
.....	+30dBu max.
.....	+21dBu max.
.....	+26dBu max.
.....	2kΩ
.....	> 10kΩ
.....	50Ω
.....	< 75Ω

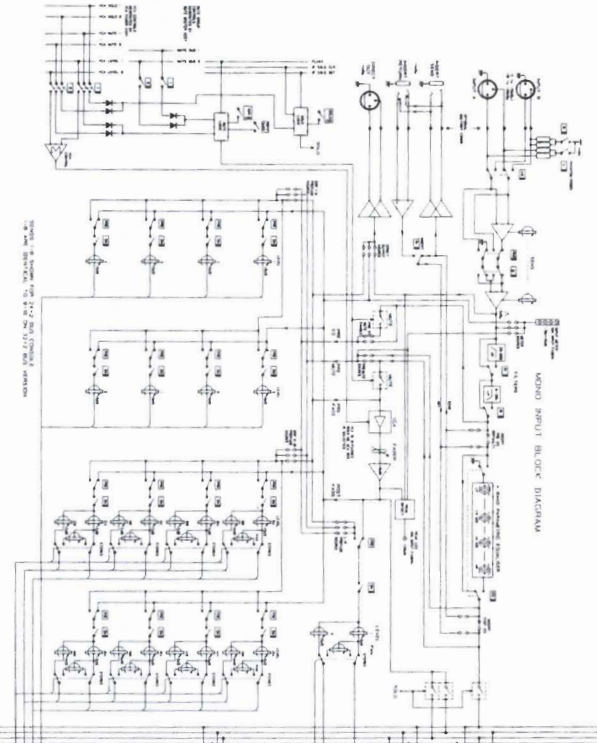
.	388.70mm (15.30")
	2007.80mm (79.05")
	2269.80mm (89.36")
	2531.80mm (99.67")
.	914.00mm (35.98")
....	156 kg (343 lbs)
....	170 kg (374 lbs)
....	185 kg (407 lbs)

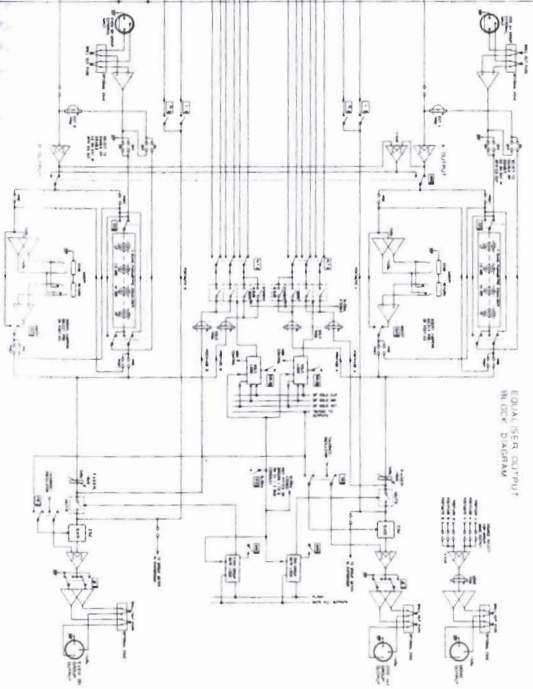
SYSTEM BLOCK DIAGRAM

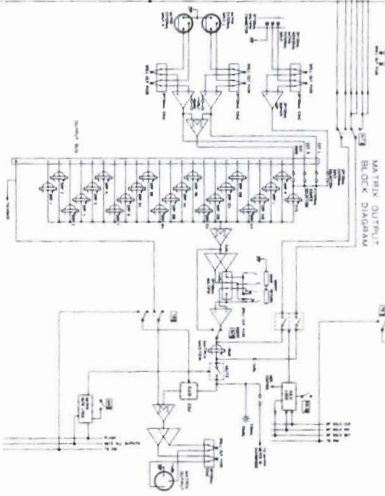


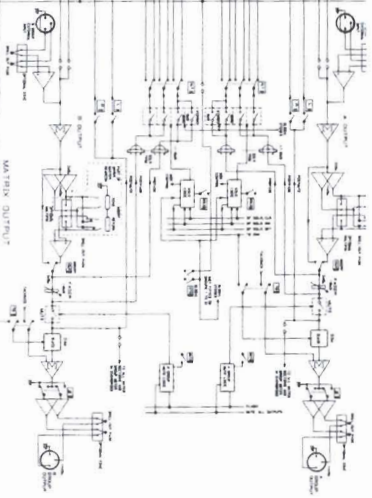

OSCILLATOR/TALKBACK


STEREO INPUT BLOCK DIAGRAM

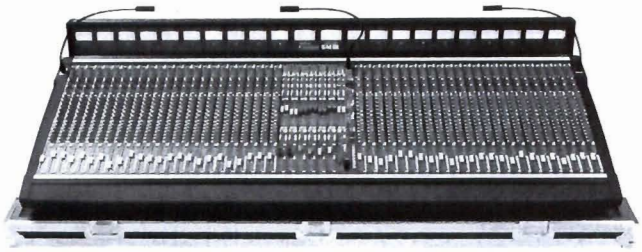

MONO INPUT BLOCK DIAGRAM


EQUALISER OUTPUT BLOCK DIAGRAM


MATRIX OUTPUT BLOCK DIAGRAM



SM20



- Compact mid-range stage monitor console with 20 mix outputs, ideal for in-ear monitoring applications
- Frame sizes from 32-56 mono inputs
- 8 mute groups
- Remote control of BSS Varicurve™ via MIDI messaging
- 4-band EQ with 2 parametric mid bands plus sweepable high-pass filter
- Up to 7 stereo and 6 mono sends, or 20 mono sends
- Sends can be individually configured as mono or stereo
- LED input and output metering
- Optional VU output meterbridge

TYPICAL SPECIFICATIONS

Frequency Response	XLR Input to any Output: ..... +0/-0.5dB, 20Hz - 20kHz
T.H.D. (@ +20dBu)	Line In to Group or Mix Out ..... < 0.005% @ 1kHz < 0.025% @ 10kHz
Noise	Mic Input E. I. N. (22Hz - 22kHz, unweighted) < -127.5dBu (200Ω source) Group Output Noise ..... < -80dBu (40ch routed) Mix Output Noise ..... < -80dBu (40ch routed)
Crosstalk (@ 1kHz)	Input Channel Muting: ..... > 100dB Input Channel Send Pot Isolation ..... > 100dB Group Fader Isolation ..... > 95dB Group to Group Crosstalk ..... < -90dB Group to LR Crosstalk ..... < -90dB
Oscillator	63Hz to 10kHz / pink noise, variable level
Filter	HP ..... 20Hz - 400Hz
EQ	HF ..... 1kHz - 20kHz, +/-15dB, bell or shelf Hi-Mid ..... 450Hz - 12kHz, +/-15dB, Q = 0.5 - 3.0 Lo-Mid ..... 70Hz - 1.5kHz, +/-15dB, Q = 0.5 - 3.0 LF ..... 30Hz - 480Hz, +/-15dB, bell or shelf
Metering	Optional VU Meterbridge with 20 VU meters for the main outputs & 2 VU meters for the main wedge outputs Each meter has a peak LED set to 3dB below clipping level Input Module ..... 10-LED bargraph incl. peak LED Output Module ..... 16-LED bargraph
Power Consumption	650W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type CPS800

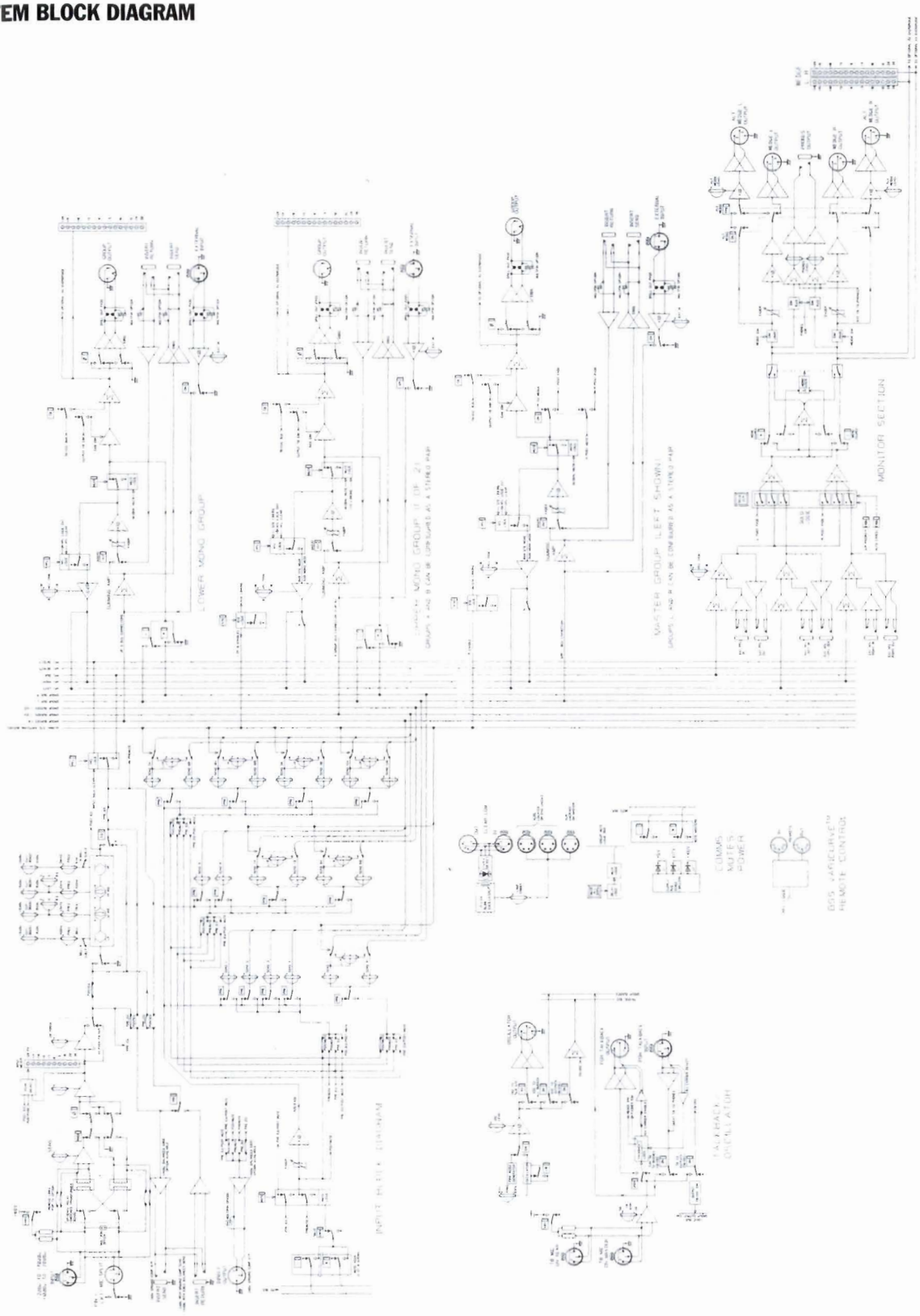
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +30dBu max. Balanced Inputs ..... +21dBu max. Balanced Outputs ..... +26dBu max. Ground Comp Outputs ..... +21dBu max.
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 50Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes, with VU meterbridge ..... 398.40mm (15.70") All frame sizes, without VU meterbridge ... 277.88mm (10.94")
Width	32 channel ..... 1366mm (53.78") 40 channel ..... 1620mm (63.78") 48 channel ..... 1874mm (73.78") 56 channel ..... 2128mm (83.78")
Depth	All frame sizes ..... 795.80mm (31.33")
Weight (incl. meterbridge)	32 channel ..... 68 kg (149.6 lbs) 40 channel ..... 91 kg (200.2 lbs) 48 channel ..... 106 kg (233.2 lbs) 56 channel ..... 121 kg (266.2 lbs)

SYSTEM BLOCK DIAGRAM



Spirit Monitor 2

- 12-bus stage monitor / front of house mixing console
- 24, 32 and 40 channel frame sizes
- 4-band EQ with two swept mid bands
- UltraMic+ preamps on all mono inputs
- 12 monitor sends with 1-8 mono and 9-12 stereo
- Split outputs for easy connection to FOH mixing console
- 48V phantom power switchable on all channels
- Rackmountable external power supply

TYPICAL SPECIFICATIONS

Frequency Response	Input to Output, medium gain 15Hz - 45kHz (< -3dB), 25Hz - 25kHz (< -1dB)
T.H.D.	Mic sens. -10dBu, faders @ unity, send @ max, +20dBu @ all outs . . <0.005% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) . . . . . -129dBu (150Ω source) Output Noise (24 inputs routed, sends down, master @ unity) . . < -80dBu
Crosstalk (@ 1kHz)	Channel Send Range . . . . . > 90dB Channel Fader Range . . . . . > 80dB Mute Attenuation . . . . . > 100dB Adjacent Output Isolation . . . . . > 90dB Typical CMRR at max gain @ 1kHz . . . . . > 85dB Typical CMRR at any gain @ 50Hz . . . . . > 65dB
Filters	HP (Inputs) . . . . . 100Hz, 18dB/octave HP (Outputs 1-8) . . . . . OFF - 160Hz HP (Outputs 9-12) 60Hz
EQ	HF . . . . . 13kHz, +/-15dB Hi-Mid . . . . . 550Hz - 13kHz, +/-15dB Lo-Mid . . . . . 80Hz - 1.9kHz, +/-15dB LF . . . . . 80Hz, +/-15dB
Metering	3-colour 12-segment LED bargraphs display levels on all output channels (pre/post-EQ) Two 3-colour 12-segment LED master bargraphs
Power Consumption	175W
Operating Conditions	Temperature Range . . . . . -10°C to +30°C Humidity . . . . . 0% to 80%
Power Supply Unit	Type DCP200

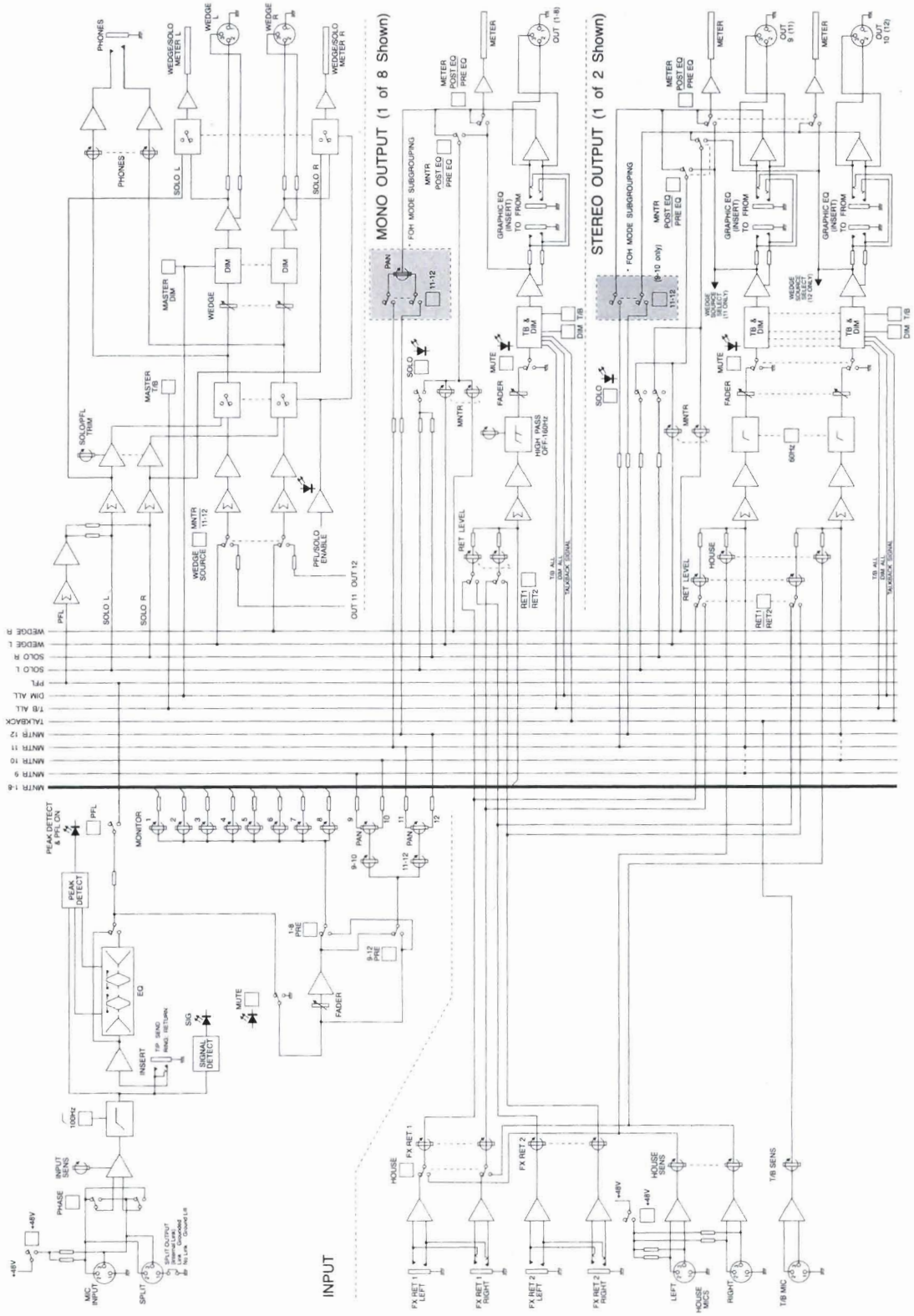
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input . . . . . +28dBu max. FX Return Input . . . . . +22dBu max. Insert Return . . . . . +22dBu max. Outputs . . . . . +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input . . . . . 1.8kΩ All other Inputs . . . . . > 10kΩ Headphone Output . . . . . 75Ω All other Outputs . . . . . < 75Ω

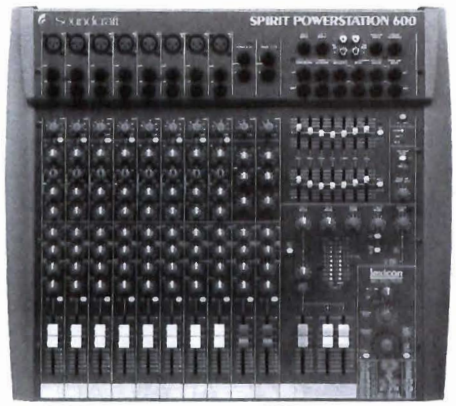
DIMENSIONS & WEIGHT

Height	All frame sizes . . . . . 88mm (3.5")
Width	24 channel . . . . . 1201mm (47.3") 32 channel . . . . . 1455mm (57.3") 40 channel . . . . . 1709mm (67.3")
Depth	All frame sizes . . . . . 591mm (23.3")
Weight	24 channel . . . . . 31.4 kg (69.1 lbs) 32 channel . . . . . 37.0 kg (81.4 lbs) 40 channel . . . . . 45.4 kg (100.0 lbs)

SYSTEM BLOCK DIAGRAM



Spirit Powerstation



- Powered mixing consoles
- Available in two versions: Powerstation 1200 and Powerstation 600
- 16 / 8 mono input channels (PS1200 / PS600)
- 24 / 16 inputs, including 2-track returns
- 2 x 600W / 300W power amplifier
- 2 stereo inputs channels
- High quality UltraMic™ preamps
- Studio-grade Lexicon dual effects processor built in

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Mixer Output ..... +/-1dB, 20Hz - 30kHz
T.H.D.	Mic, Line or Stereo Input to Main Outputs, +20dBu @ output .. < 0.009%
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Aux Outputs (22Hz - 22kHz) ..... -83dBu Main Outputs (22Hz - 22kHz) ..... -80dBu
Crosstalk (@ 1kHz)	Fader Attenuation ..... 100dB Aux Send Attenuation ..... 80dB Stereo Separation 70dB
Filter	HP 100Hz, 18dB/octave
EQ	HF ..... 12kHz, +/-15dB MF ..... 1kHz, +/-15dB LF ..... 80Hz, +/-15dB
Metering	10-segment LED bargraph Accuracy relative to 0dB ..... +/-1dB
Power Amplifier Power Output	Powerstation 600 ..... 300W + 300W RMS into 4Ω 175W + 175W RMS into 8Ω Powerstation 1200 ..... 600W + 600W RMS into 4Ω 350W + 350W RMS into 8Ω
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

INPUT / OUTPUT SPECIFICATIONS

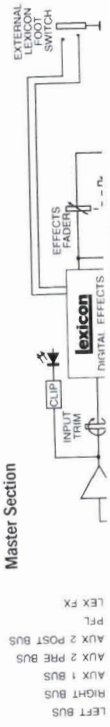
Input & Output Levels	Mic Input ..... +21dBu max. Line Input ..... > +30dBu max. Stereo Input ..... +26dBu max. Stereo & 2TK Return ..... > +30dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	Powerstation 600 / 1200 ..... 184mm (7.3")
Width	Powerstation 600 ..... 504mm (20.0") Powerstation 600 (side cheeks removed) ..... 438mm (17.2") Powerstation 1200 ..... 736mm (29.0") Powerstation 1200 (side cheeks removed) .... 670mm (26.4")
Depth	Powerstation 600 / 1200 ..... 455mm (18.0")
Weight (packed)	Powerstation 600 ..... 21.4 kg (47.1 lbs) Powerstation 1200 ..... 29.6 kg (65.1 lbs)

SPIRIT P

SYSTEM BLOC

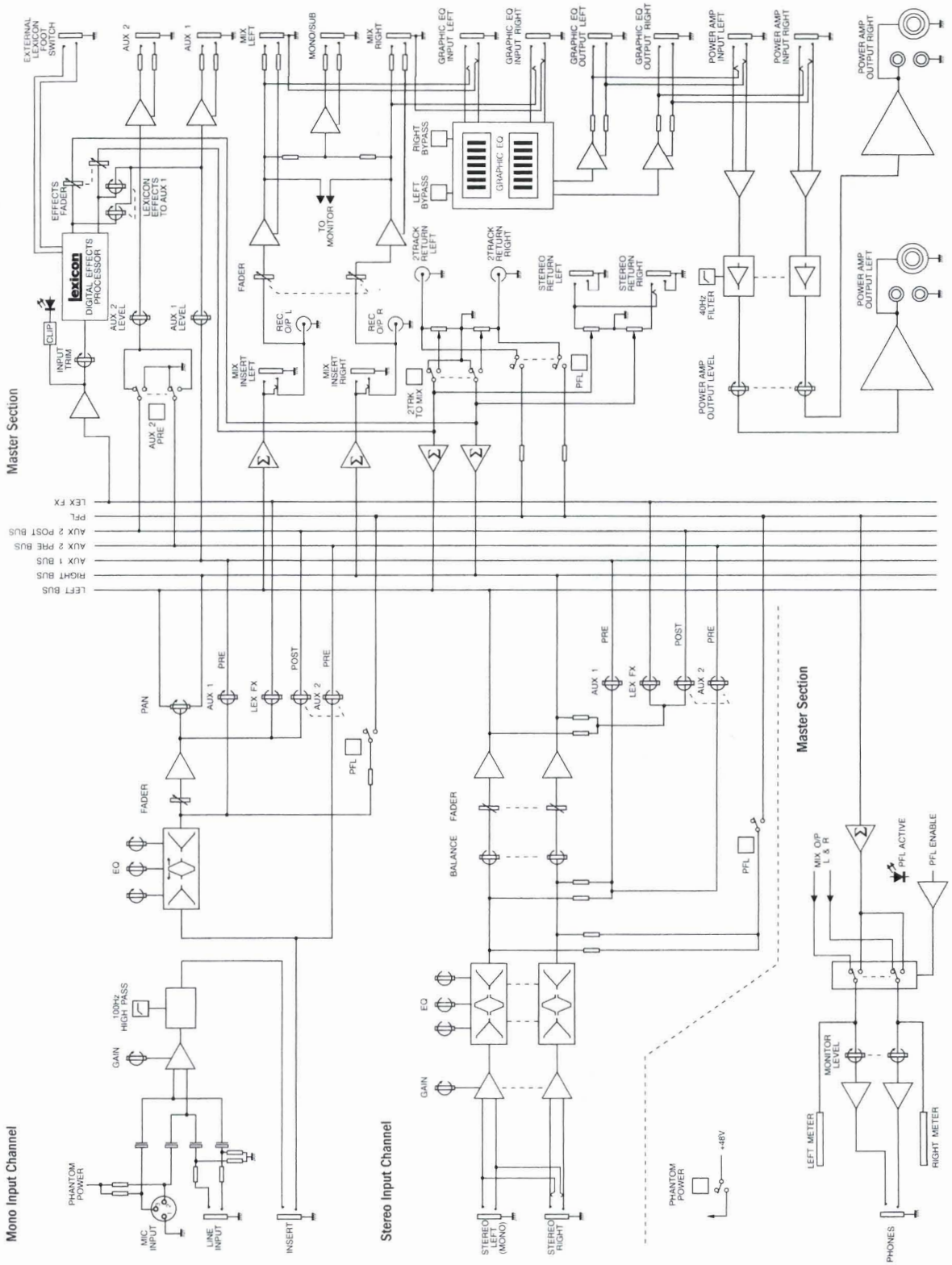


1 Powerstation 600

	+21dBu max.
	> +30dBu max.
	+26dBu max.
	> +30dBu max.
	1Bu max., +4dBu nominal
	1.8kΩ
	> 10kΩ
	75Ω
	75Ω

	184mm (7.3")
	504mm (20.0")
)	438mm (17.2")
	736mm (29.0")
d)	670mm (26.4")
	455mm (18.0")
	21.4 kg (47.1 lbs)
	29.6 kg (65.1 lbs)

SYSTEM BLOCK DIAGRAM



GigRac

GigRac 1000st shown

- Available in three models: GigRac 300, GigRac 600 & GigRac 1000st
- 8 channel mixer
- XLR, jack and phono inputs
- 2-band channel equalisation (GigRac 300/600)
- 3-band channel equalisation (GigRac 1000st)
- On-board 7-band graphic equalisation
- High quality digital effects programmes
- 10-segment precision LED metering
- Independent Main and Monitor mixes

TYPICAL SPECIFICATIONS

Frequency Response	20Hz - 22kHz rel 1kHz Line in to Main out ..... +0.2/-2.5dB
T.H.D.	Mic I/P -20dB Pad 0dBu I/P at Main out (22Hz-22kHz) ..... 0.15% Mic I/P to Amp Out @ full power (22Hz-22kHz) 0.15%
Noise	Mic Input E.I.N. (maximum gain) ..... <-123dBu (150Ω source) Main out (Level control mid) ..... < -78dBu Mon out (Level control mid) ..... < -80dBu Amp out ..... < -57dBu
Crosstalk / Isolation	Main cutoff ..... -80dB Mon cutoff ..... -80dB
Outputs	Max out Main / Mon ..... 18dBu Power Output GigRac 300 ..... 300W ref 4Ω Power Output GigRac 600 ..... 2 x 300W ref 4Ω Power Output GigRac 1000st ..... 2 x 500W ref 4Ω
Metering	10-segment LED bargraph displays mix output levels
Power	Internal power supply

COMPARISON OF FEATURES

Feature	GigRac 300	GigRac 600	GigRac 1000st
Power Amp @ 4 Ohms	300W	2 x 300W	2 x 500W
Size (Uncased)	4U / 7 inches	4U / 7 inches	5U / 8.75 inches
Channel EQ	2 band fixed	2 band fixed	3 band fixed
Stereo	No	No	Yes
Pan Controls	No	No	Yes
Graphic EQ	1 x 7 Band Selectable to Main or Monitor path	1 x 7 band Selectable to Main or Monitor path	1 x Stereo 7 band for Main Mix 1 x Mono 7 band for Monitor Mix
GigFX Presets	8	8	10
Output Meters	1 - Main Mix only	1 - Main Mix only	2 - Main L/R or Mono Main/Monitor Mixes
Playback Input	No	No	Yes
Standby Mute	No	No	Yes
Submix Input	Mono	Mono	Stereo
Mix output	Mono	Mono	Stereo

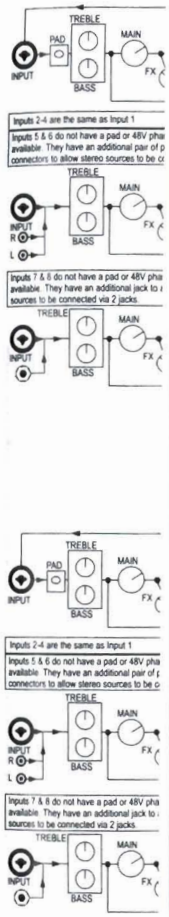
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Max Input Mic (20dB pad) (Ch1-Ch4) ..... -3.5dBu Max Input Mic (20dB pad) (Ch5-Ch8) ..... -18dBu Max Input Line (20dB pad) (Ch1-Ch4) ..... 10dBu Max Input Line (20dB pad) (Ch5-Ch8) ..... 3dBu Max Mic Gain to Main Out (Ch1-Ch4) ..... 60dBu Max Mic Gain to Main Out (Ch5-Ch8) 50dBu
Input & Output Impedances	Mic Input (Ch1-Ch4) ..... 5.5kΩ Mic Input (Ch5-Ch8) ..... 2.4kΩ Line Input (Ch1-Ch4) ..... 30kΩ Line Input (Ch5-Ch8) 40kΩ

DIMENSIONS & WEIGHT

Height	GigRac 300/600 ..... 222mm (8.75") GigRac 1000st ..... 267mm (10.5")
Width	GigRac 300/600 ..... 495mm (19.5") GigRac 1000st ..... 495mm (19.5")
Depth	GigRac 300/600 ..... 322mm (12.7") GigRac 1000st ..... 322mm (12.7")
Weight	GigRac 300 ..... 11.5 kg (25.3 lbs) GigRac 600 ..... 12.7 kg (27.9 lbs) GigRac 1000st ..... 12.0 kg (26.4 lbs)

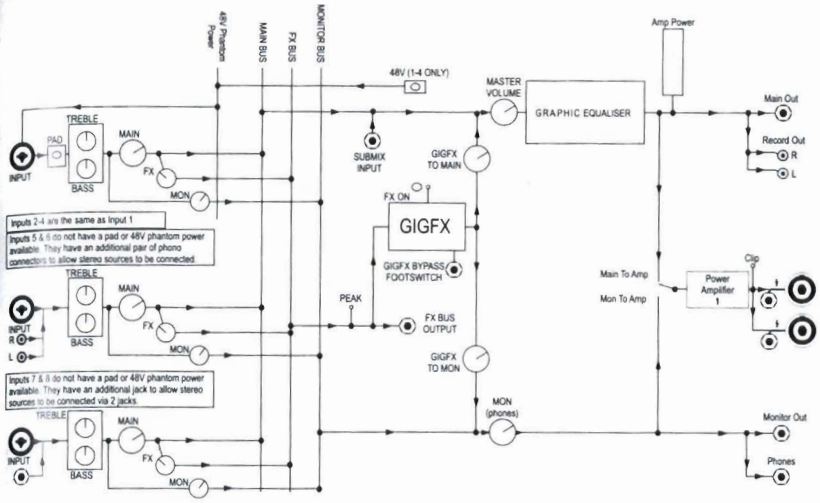
SYSTEM BLOC



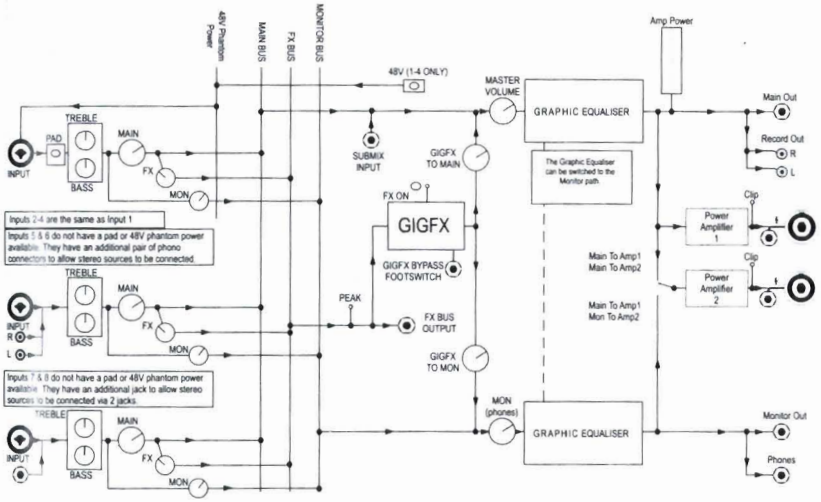
) & GigRac 1000st

.....	-3.5dBu
.....	-18dBu
.....	10dBu
.....	3dBu
.....	60dBu
.....	50dBu
.....	5.5kΩ
.....	2.4kΩ
.....	30kΩ
.....	40kΩ
....	222mm (8.75")
....	267mm (10.5")
....	495mm (19.5")
....	495mm (19.5")
....	322mm (12.7")
....	322mm (12.7")
..	11.5 kg (25.3 lbs)
..	12.7 kg (27.9 lbs)
..	12.0 kg (26.4 lbs)

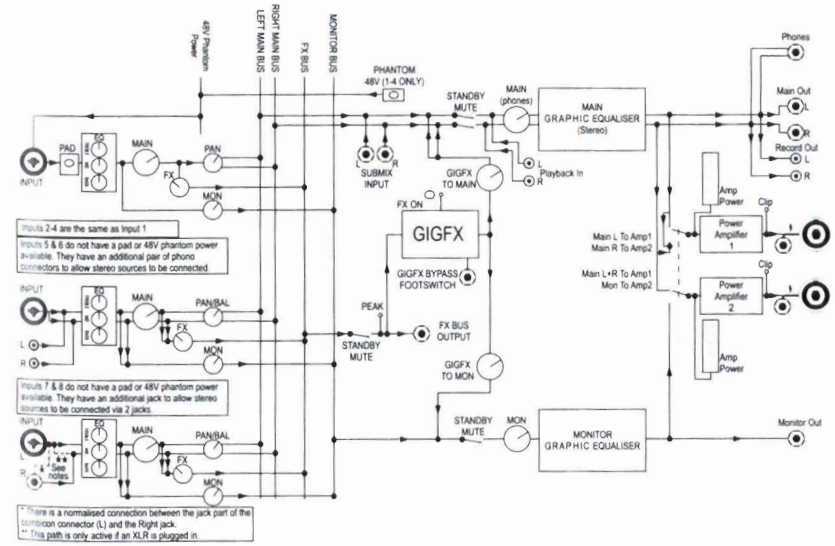
SYSTEM BLOCK DIAGRAMS



GigRac 300



GigRac 600



GigRac 1000st

Spirit Powerpad

- Compact powered mixer with a lightweight frame
- Integral 2-channel 30W power amp
- 10 inputs, including 4 mono mic/line inputs and 2 stereo inputs
- High-quality mic preamps with phantom power
- Stereo inputs feature switchable RIAA preamps for turntables
- Amplifier clip and thermal protection
- Custom-designed controls for accurate response

TYPICAL SPECIFICATIONS

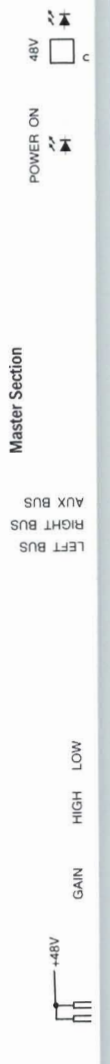
Frequency Response	Line Input to Master Mix ..... -1dB, 20Hz - 20kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ output ..... < 0.005%
Noise	Mic Input E.I.N. ..... -128.5dBu (150Ω source) Output ..... -84dBu Aux Out (inputs down) ..... -80dBu Mix (masters @ max) ..... -80dBu Noise (22Hz - 22kHz, ch. faders down, loudspeaker output rel. to full output): Master faders up ..... < -98dBr Master faders down ..... < -103dBr
Crosstalk (@ 1kHz)	Fader Cut-off (rel 0 mark) ..... > 90dB Aux Send ..... > 90dB Pan Isolation ..... > 75dB
EQ	HF ..... 12kHz, +/-15dB LF ..... 80Hz, +/-15dB
Metering	PK and AVG LEDs
Power Consumption	100W maximum
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

INPUT / OUTPUT SPECIFICATIONS

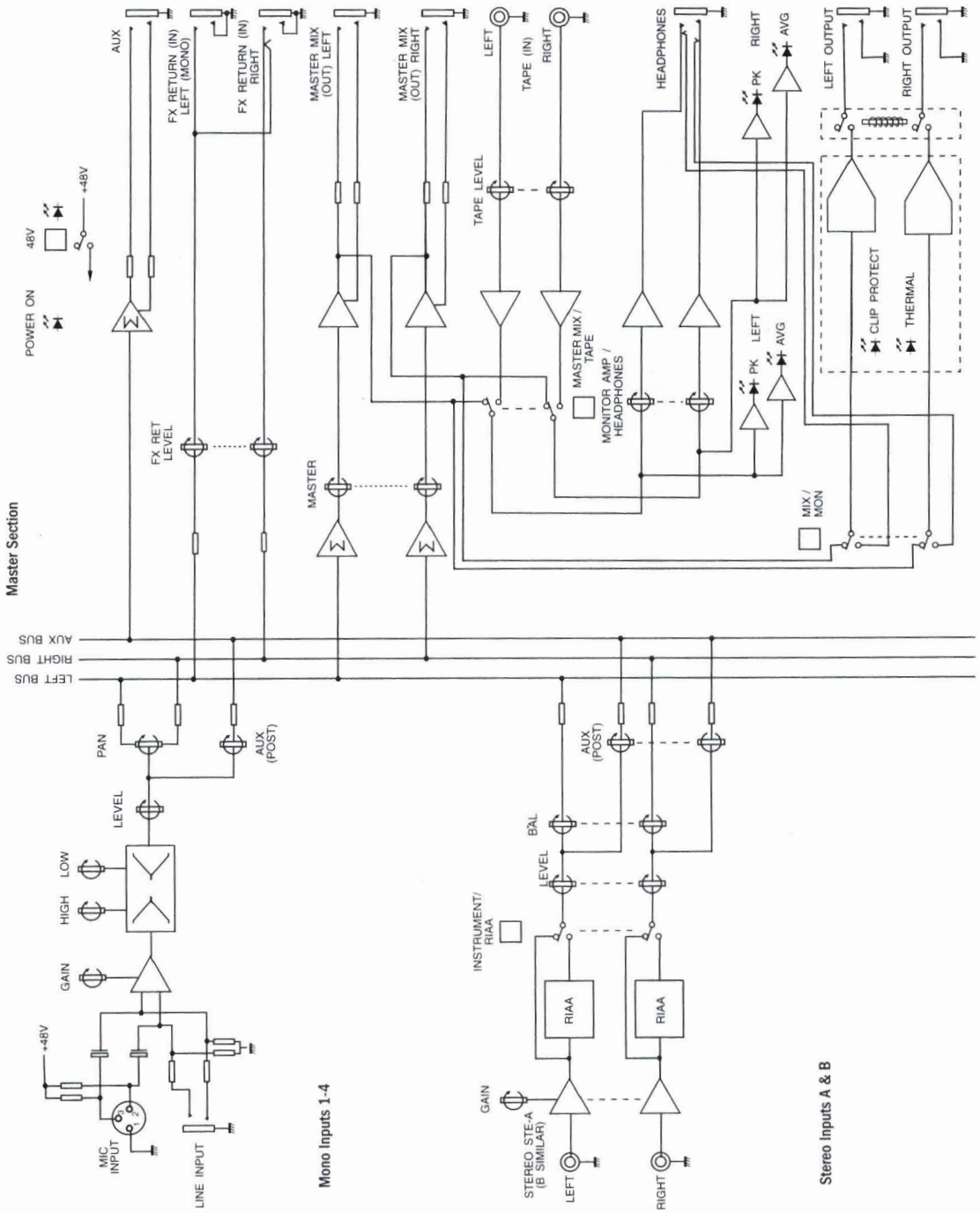
Input & Output Levels	Mic Input ..... +14dBu max. Line Input ..... > +30dBu max. Outputs ..... +21dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

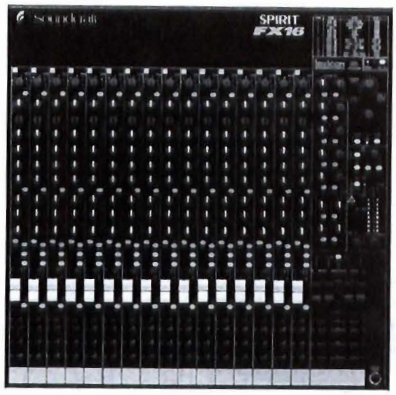
Height	102mm (4.0")
Width	248mm (9.8")
Depth	237mm (9.3")
Weight (packed)	4.96 kg (10.9 lbs)



SYSTEM BLOCK DIAGRAM



Spirit FX16



- 16 mic/line input mixer with Lexicon effects
- Powerful live and recording features
- 26 inputs, including 16 mono channels with high-quality UltraMic™ preamps
- 4 stereo returns
- Global 48V phantom power
- Studio-grade Lexicon dual effects processor built in
- 3-band EQ with swept mid
- 4-bus architecture with sub-group routable to mix
- Direct outputs for multitrack recording, individually switchable for pre- or post-fade operation
- 3 aux sends for effects or monitors

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-0.5dB, 20Hz - 30kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ Mix output ..... < 0.009% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Aux, Mix and Masters (@ max, faders down) ..... < -80dBu
Crosstalk (@ 1kHz)	Channel Mute ..... > 96dB Fader Cut-off (rel 0 mark) ..... > 90dB Routing Isolation ..... > 90dB Aux Send Pots offness ..... > 84dB
EQ	HF ..... 12kHz, +/-15dB, Q = 1.5 MF ..... 240Hz - 6kHz, +/-15dB LF ..... 80Hz, +/-15dB, Q = 1.5
Metering	Two 3-colour 10-segment bargraph meters show mix, submix, control room or 2-track levels Peak reading (PPM)
Power Consumption	42W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +22dBu max. Line Input ..... > +30dBu max. Stereo Return ..... > +30dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	148mm (5.83")
Width	Without rack brackets ..... 443.6mm (17.46") With rack brackets ..... 482.0mm (19")
Depth	442.0mm (17.42") Fits 10U rack space
Weight	Including power supply ..... 11.2 kg (24.6 lbs)

SPIRIT

SYSTEM BLOCK

Soundcraft

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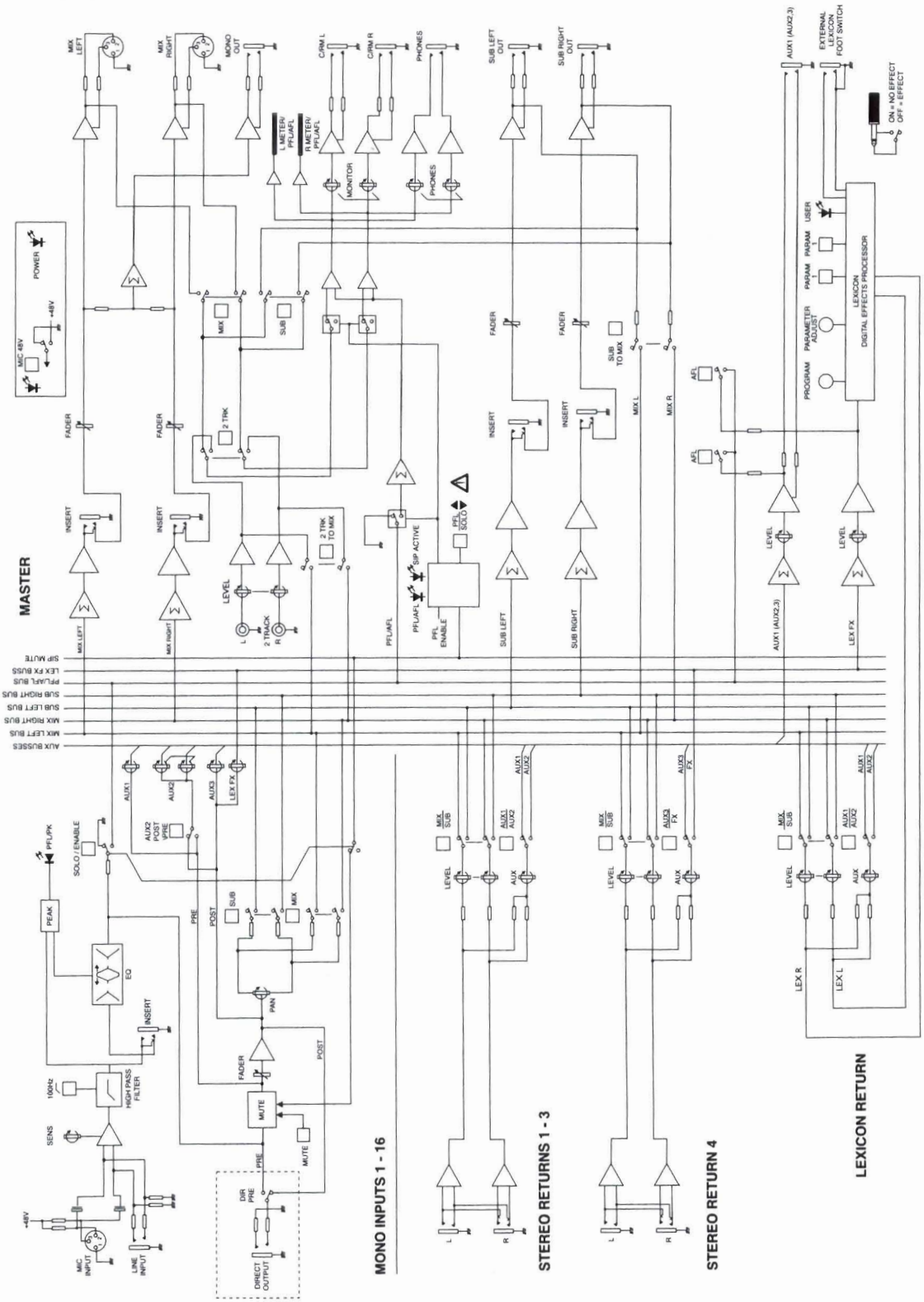
SYSTEM BLOCK DIAGRAM



Spirit FX8

- 8 mic/line input mixer with Lexicon effects
- 18 inputs, including 8 mono channels with high-quality UltraMic™ preamps
- 4 stereo inputs
- Global 48V phantom power
- Studio-grade Lexicon dual effects processor built in
- 3-band EQ with swept mid
- 4-bus architecture with sub-group routable to mix
- Direct outputs for multitrack recording, globally switchable for pre- or post-fade operation
- 3 auxes

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-0.5dB, 20Hz - 20kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ Mix output ..... < 0.009% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Aux, Mix and Masters (@ max, faders down) ..... < -85dBu
Crosstalk (@ 1kHz)	Channel Mute ..... > 96dB Fader Cut-off (rel 0 mark) ..... > 90dB Routing Isolation ..... > 90dB Aux Send Pots Offness ..... > 80dB
Filter	HP 100Hz, 18dB/octave
EQ (Mono Inputs)	HF ..... 12kHz, +/-15dB, Q = 1.5 MF ..... 250Hz - 6kHz, +/-15dB, Q = 1.5 LF ..... 80Hz, +/-15dB, Q = 1.5
EQ (Stereo Inputs)	HF ..... 12kHz LF 80Hz
Metering	Two 3-colour 10-segment bargraph meters show mix output levels Peak reading (PPM)
Power Consumption	36W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

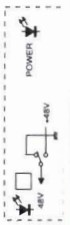
INPUT / OUTPUT SPECIFICATIONS

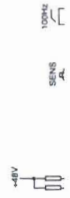
Input & Output Levels	Mic Input ..... +22dBu max. Line Input ..... > +30dBu max. Stereo Return ..... > +30dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... > 3kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	Without rack brackets ..... 106.1mm (4.18") With rack brackets ..... 96.8mm (3.81")
Width	Without rack brackets ..... 420.0mm (16.54") With rack brackets ..... 482.0mm (19")
Depth	Without rack brackets ..... 449.1mm (17.68") With rack brackets ... 442.0mm (17.42"), fits 10U rack space
Weight	Including power supply ..... 8.0 kg (17.6 lbs)

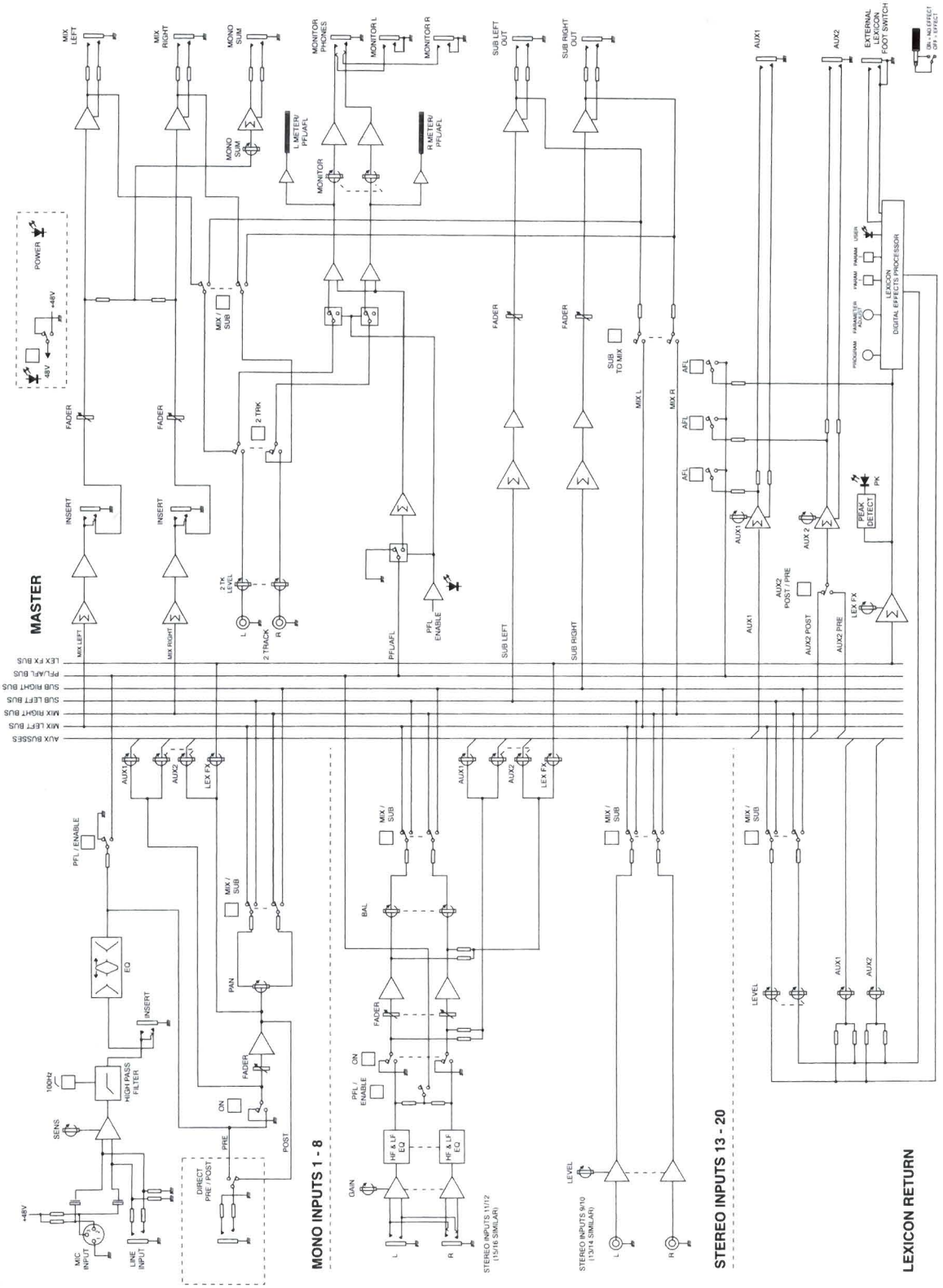
SYSTEM BLOC





Soundcr

SYSTEM BLOCK DIAGRAM



Spirit M Series

- 4, 8 or 12 mono inputs with 3-band EQ (swept mid)
- 4 stereo inputs
- Rugged chassis design, with integral rackmount capability
- 4 dedicated level-controlled FX returns with master level control
- 4 auxiliary sends - 2 pre-fade, 2 post-fade
- Pre-/post-fade switchable direct output on every mono input channel
- Signal detect and peak LEDs on all input channels
- S/PDIF digital output
- Global 48V phantom power
- 100mm faders throughout

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-1dB, 20Hz - 20kHz
T.H.D.	Mic Sensitivity -30dBu, +20dBu @ all outputs ..... < 0.008% @ 1kHz
Noise	Mic Input E.I.N. (max. gain, 22Hz - 22kHz, unweighted) ..... -128dBu Aux and Mix Outputs (8 ch. routed, faders down, 22Hz - 22kHz, unweighted) ..... < -84dBu
Crosstalk	Channel Mute ..... < 90dB 20Hz - 10kHz, < 80dB 10kHz - 20kHz Fader Cut-Off (ref. Fader 0dB) .. < 90dB 20Hz - 10kHz, < 80dB 10kHz - 20kHz Routing Isolation ..... < 90dB 20Hz - 10kHz, < 80dB 10kHz - 20kHz
Filter	HP 100Hz, 18dB/octave
EQ	HF ..... 12kHz, +/-15dB MF ..... 240Hz - 6kHz, +/-15dB LF ..... 60Hz, +/-15dB
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

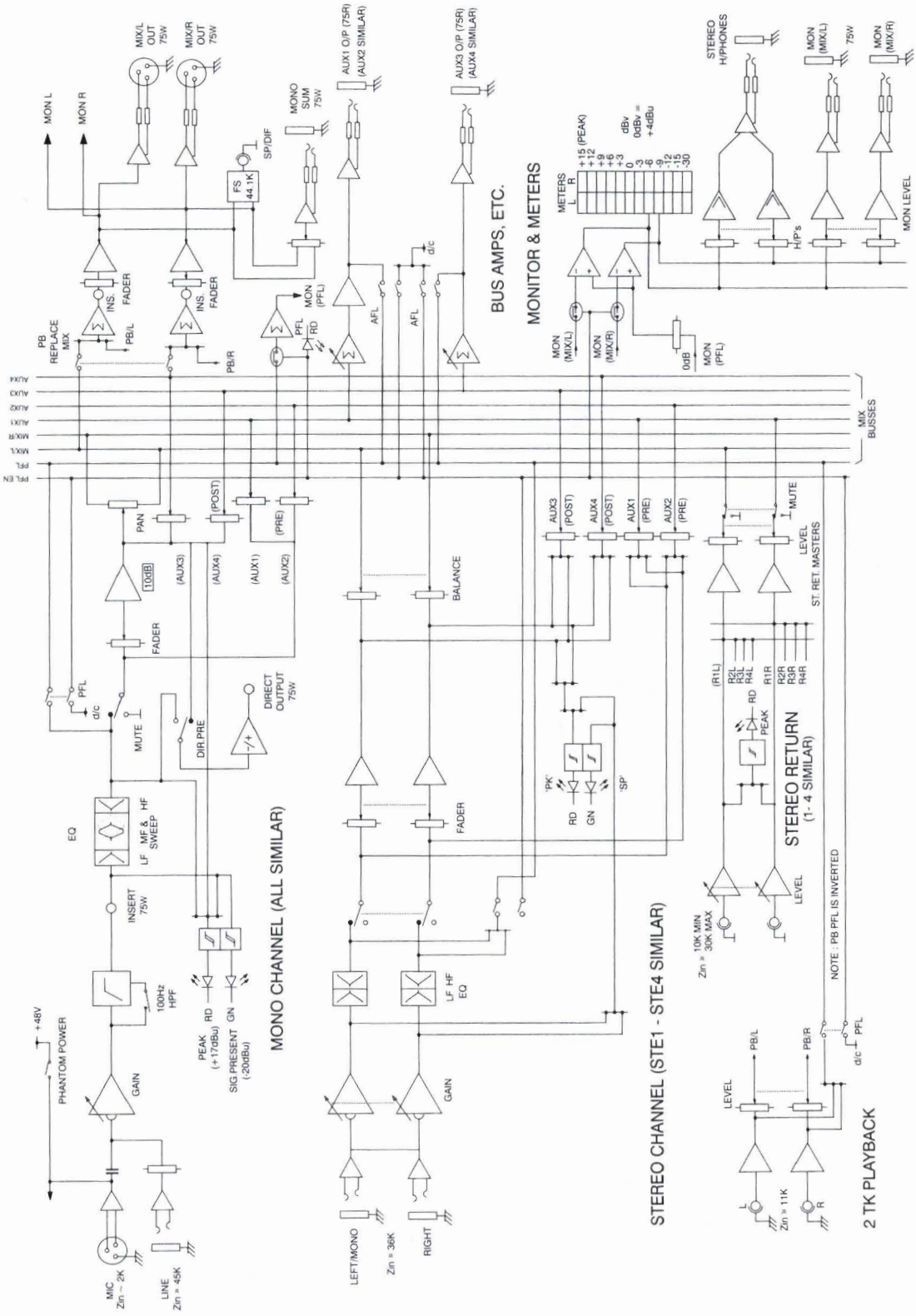
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Microphone Input Maximum Level ..... +12dBu Mono Channel Line Input Maximum Level ..... +38dBu Stereo Input Maximum Level ..... +21dBu Headphones Output (into 200Ω) ..... 150mW All Other Audio Outputs ..... +21dBu into 10kΩ
Input & Output Impedances	Mic Input ..... ~ 2kΩ Mono Channel Line Input ..... > 40kΩ Stereo Input (Stereo Mode) ..... > 30kΩ Stereo Returns ..... > 10kΩ Headphone Output ..... ~ 40Ω All Other Audio Outputs 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes ..... 119mm (4.7")
Width	4 channel, with sides ..... 397mm (15.6") 4 channel, without sides ..... 373mm (14.7") 8 / 12 channel, with sides ..... 506mm (19.9") 8 / 12 channel, without sides (rackmount) ... 483mm (19.0")
Depth	All frame sizes, with sides ..... 523mm (20.6") All frame sizes, without sides (rackmount) .... 490mm (19.3"), fits into 11U
Weight (incl. power supply)	4 channel ..... 6.75 kg (14.8 lbs) 8 channel ..... 8.25 kg (18.1 lbs) 12 channel ..... 8.55 kg (18.8 lbs)

SYSTEM BLOCK DIAGRAM



Spirit SX

- Compact 20-input mixer for live and studio use
- 12 mono channels with high-quality UltraMic™ preamps
- 4 stereo inputs
- Global 48V phantom power
- Channel mute
- 3-band EQ with swept mid
- 4-bus architecture with sub-group routable to mix
- Direct outs for multitrack recording
- 3 auxes
- Rugged frame with integral carry handle

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-1dB, 20Hz - 30kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ Mix output ..... < 0.006% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -129dBu (150Ω source) Aux, Mix and Masters (@ max, faders down) ..... < -85dBu
Crosstalk (@ 1kHz)	Channel Mute ..... > 95dB Fader Cut-off (rel 0 mark) ..... > 90dB Routing Isolation ..... > 90dB Aux Send Pots Offness ..... > 85dB
Filter	HP 100Hz, 18dB/octave
EQ (Mono Inputs)	HF ..... 12kHz, +/-15dB, Q = 1.5 MF ..... 250Hz - 6kHz, +/-15dB, Q = 1.5 LF ..... 80Hz, +/-15dB, Q = 1.5
EQ (Stereo Inputs)	HF ..... 12kHz LF 80Hz
Metering	Two 3-colour 10-segment bargraph meters show mix output levels Peak reading (PPM)
Power Consumption	36W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

INPUT / OUTPUT SPECIFICATIONS

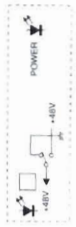
Input & Output Levels	Mic Input ..... +22dBu max. Line Input ..... > +30dBu max. Stereo Input ..... > +30dBu max. Outputs ..... +22dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ All other Inputs ..... > 10kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	Without rack brackets ..... 80.0mm (3.15") With rack brackets ..... 60.0mm (2.36")
Width	Without rack brackets ..... 479.0mm (18.86") With rack brackets ..... 483.0mm (19")
Depth	Without rack brackets ..... 511.5mm (20.14") With rack brackets ... 443.5mm (17.46"), fits 10U rack space
Weight	Including power supply ..... 7.2 kg (15.8 lbs)

Soundcraft

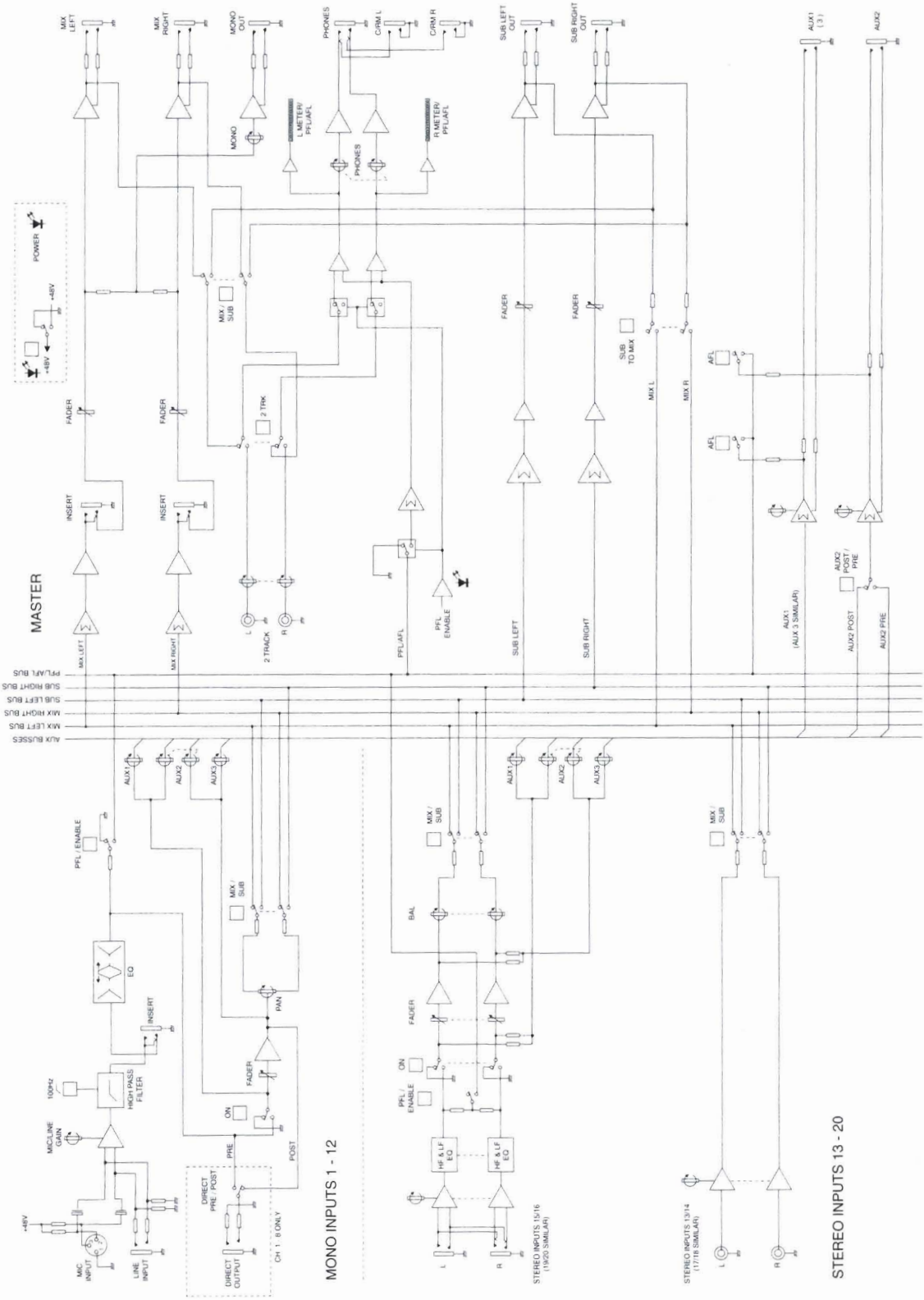
SYSTEM BLOC



amps

.....	+22dBu max.
.....	> +30dBu max.
.....	> +30dBu max.
ı max.,	+4dBu nominal
.....	1.8kΩ
.....	> 10kΩ
.....	75Ω
.....	75Ω
....	80.0mm (3.15")
....	60.0mm (2.36")
..	479.0mm (18.86")
....	483.0mm (19")
..	511.5mm (20.14")
ı"),	fits 10U rack space
...	7.2 kg (15.8 lbs)

SYSTEM BLOCK DIAGRAM



Spirit E Series

Pictured : Spirit E12

- 6, 8 and 12 mono channels with 2 stereo inputs
- ES model with 10 stereo channels and 4 mono inputs
- Precision, ultra-linear mic preamps
- High resolution, wide gain stages with masses of headroom
- 100mm high accuracy faders
- Integral switched mode low noise PSU design with universal input
- Professional insert points for external processing
- Intuitive solo system
- True professional +48v phantom power for condenser microphones
- Multi point signal channel status monitoring on all channels
- Built in, extensive metering for mix and solo system
- Precision 3-band EQ with swept mid (mono input)
- Easy conversion to rack mounting (cost option kit)

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-0.5dB, 20Hz - 20kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ Mix output ..... < 0.007% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -128dBu (150Ω source) Aux, Mix and Masters (@ max, faders down) ..... < -85dBu
Crosstalk (@ 1kHz)	Channel Mute ..... > 96dB Fader Cut-off (rel +10 mark) ..... > 96dB Aux Send Pots Offness ..... > 86dB
EQ (Mono inputs)	HF ..... 12kHz, +/-15dB, Q = 1.5 MF ..... 140Hz - 3kHz, +/-15dB, Q = 1.5 LF ..... 80Hz, +/-15dB, Q = 1.5
EQ (Stereo inputs)	HF ..... 12kHz MF (ES only) ..... 600Hz LF 80Hz
Power Consumption	E6=13W; E8=14.5W; E12=17W; ES=15.5W
Operating Conditions	Temperature Range ..... 0°C to +50°C

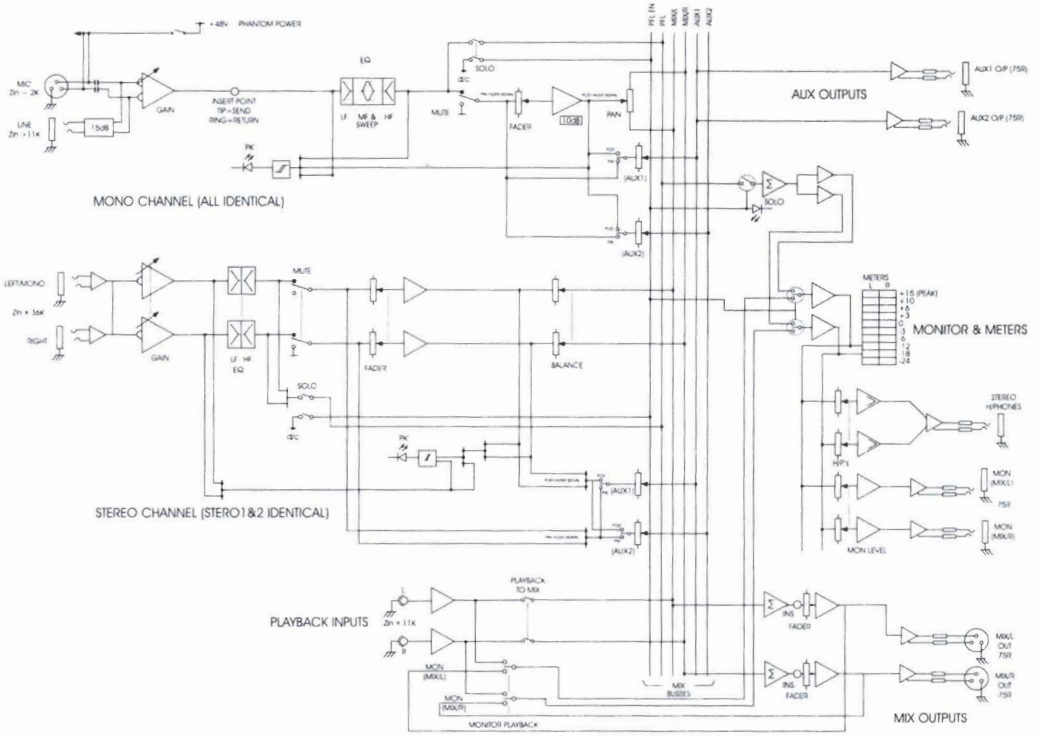
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +17dBu max. Line Input ..... +30dBu max. Stereo Input ..... +30dBu max. Mix Output ..... +20dBu max. Headphones (@200Ω) 300mW
Input & Output Impedances	Mic Input ..... 2.4kΩ Line Input ..... 11kΩ Stereo Input ..... 100kΩ Outputs 75Ω

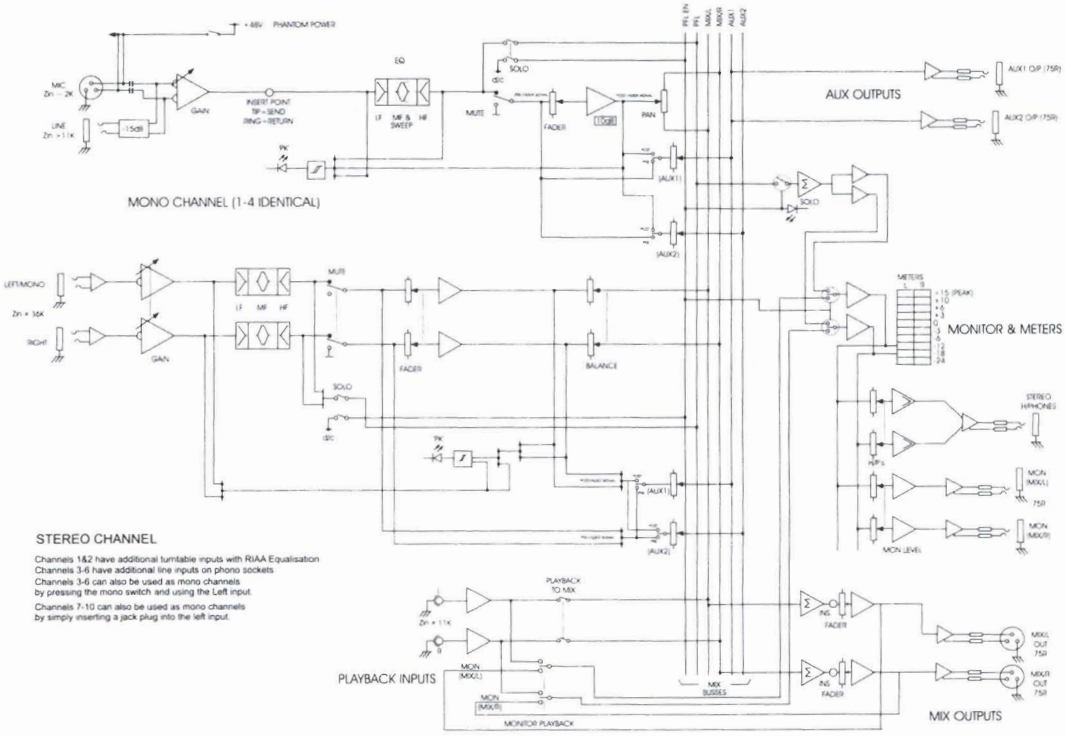
DIMENSIONS & WEIGHT

Height	All frame sizes ..... 95.11mm (3.74")
Width	E6 without rack brackets ..... 275.6mm (10.85") E6 with rack brackets ..... 283.6mm (11.77") E8 without rack brackets ..... 326.4mm (12.85") E8 with rack brackets ..... 334.4mm (13.17") E12/ES without rack brackets ..... 428mm (16.85") E12/ES with rack brackets ..... 436mm (17.17")
Depth	All frame sizes without rack brackets ..... 451.43mm (17.77") All frame sizes with rack brackets ..... 400.05mm (16.33")
Weight	E6 ..... 5.75 kg (12.68 lbs) E8 ..... 6.75 kg (14.88 lbs) E12/ES ..... 7.75 kg (17.09 lbs)

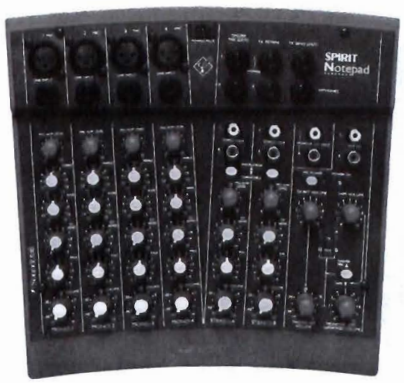
SYSTEM BLOCK DIAGRAM: E6, E8, E12



SYSTEM BLOCK DIAGRAM: ES



Spirit Notepad



- Ultra-compact lightweight mixer
- 4 mono inputs and 2 stereo inputs
- Global 48V phantom power
- 2-band EQ on all 4 mono channels
- Post-fade aux send on every input
- 2-track tape return
- Separate mix and monitor outputs
- Custom designed rotary controls for precision control and accurate response
- Optional mic stand adaptor enables the Notepad to be fitted to a mic stand

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-1dB, 20Hz - 20kHz
T.H.D.	Mic Sensitivity -30dBu, +14dBu @ Mix output ..... < 0.005% @ 1kHz
Noise	Mic Input E.I.N. (maximum gain) ..... -128.5dBu (150Ω source) Aux, Mix and Masters (@ max, faders down) ..... -80dBu
Crosstalk (@ 1kHz)	Channel Mute ..... > 90dB Routing Isolation ..... > 90dB
EQ	HF ..... Treble control LF ..... Bass control
Metering	Amber AVG (average) indicators display normal signal levels Red PK (Peak) indicators warn of overload
Power Consumption	20W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%

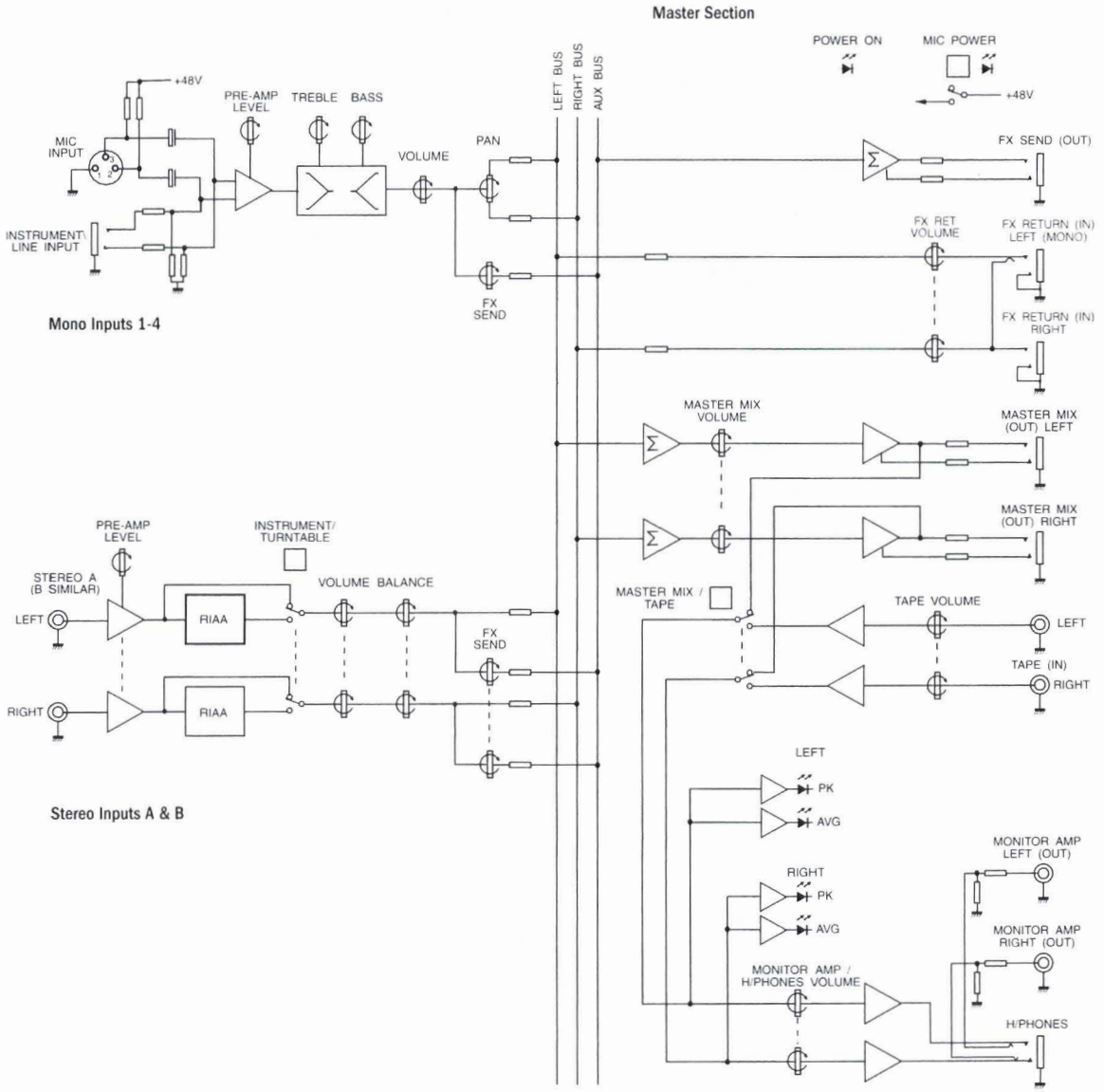
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +14dBu max. Line Input ..... > +30dBu max. Outputs ..... +21dBu max., +4dBu nominal
Input & Output Impedances	Mic Input ..... 1.8kΩ Line Input ..... 20kΩ Stereo Input ..... 20kΩ Headphone Output ..... 75Ω All other Outputs 75Ω

DIMENSIONS & WEIGHT

Height	50.0mm (1.97")
Width	248mm (9.76")
Depth	237mm (9.33")
Weight	Including power supply ..... 1.9 kg (4.2 lbs)

SYSTEM BLOCK DIAGRAM



Ghost LE

- Highly versatile 8-bus mixing console
- 24 and 32 channel sizes, with an optional 24 input channel expander
- Comprehensive 4-band EQ, with 2 fully parametric mid-ranges
- Low noise mic amp
- External tape machine transport control
- 10 auxiliary send busses
- Powerful EQ

TYPICAL SPECIFICATIONS

Frequency Response	Mic/Line Input to any Output (sens. @ 30dB) .. +0/-0.5dB, 20Hz - 20kHz
T.H.D.	Mic/Line to Direct Output (EQ out) ..... < 0.002% @ 1kHz Mic/Line to Direct Output (EQ in) ..... < 0.003% @ 1kHz Mix B to Direct Output (Swap pressed) ..... < 0.002% @ 1kHz
Noise	Mic Input E.I.N. (sensitivity @ -60dBu) .. -128dBu measured at input point Mic Input E.I.N. (sensitivity @ -30dBu) ..... -128dBu (150Ω source) Direct Output (22Hz-22kHz, mic sens. @ -10dB, ch. fader @ unity, EQ out) -95dBu Direct Output (22Hz-22kHz, mic sens. @ -10dB, ch. fader @ unity, EQ in) -93dBu Bus Noise (22Hz - 22kHz, Gp O/Ps 1-8, no ch. routed, faders down) .. -90dBu Bus Noise (22Hz - 22kHz, Gp O/Ps 1-8, 24 ch. routed, faders down) .. -80dBu Mix Output (no ch. routed, mix fader @ unity, ch. faders down) ..... -90dBu Mix Output (24 ch. routed, mix fader @ unity, ch. faders down) ..... -80dBu
Crosstalk (@ 1kHz)	Mic Input to Line Input ..... -100dB Line Input to Mic Input ..... -90dB Mix B to Channel ..... -80dB Channel to Mix B ..... -75dB Fader Attenuation ..... -80dB
CMRR (@ 1kHz)	Mic Input, typical at sensitivity -30dBu ..... -90dB Line Input, typical at sensitivity 0dBu ..... -60dB
Filter	HP 100Hz, 18dB/octave
EQ	HF ..... 12kHz, +/-15dB Hi-Mid ..... 400Hz - 20kHz, +/-15dB, Q = 0.7 - 6 Lo-Mid ..... 25Hz - 1.5kHz, +/-15dB, Q = 0.7 - 6 LF ..... 60Hz, +/-15dB
Metering	Via a single LED that glows brighter as level increases and a peak LED Optional overbridge is available, with 12-segment LED bargraph metering
Power Consumption	450W
Operating Conditions	Temperature Range ..... -10°C to +30°C Humidity ..... 0% to 80%
Power Supply Unit	Type CPS275

INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... -60dBu to -8dBu Line Inputs ..... -40dBu to +12dBu Group Outputs ..... -10dBV / +4dBu Mix Outputs ..... +4dBu
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... > 10kΩ All Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	All frame sizes, with optional meterbridge .. 227.79mm (8.97")
Width	24 channel ..... 1059.36mm (41.71") 32 channel ..... 1303.20mm (51.31") 24 channel expander ..... 815.52mm (32.11")
Depth	All frame sizes ..... 780.71mm (30.74")
Weight	24 channel ..... 44.0 kg (97 lbs) 32 channel ..... 53.6 kg (118 lbs) 24 channel expander ..... 33.0 kg (73 lbs)

Gho

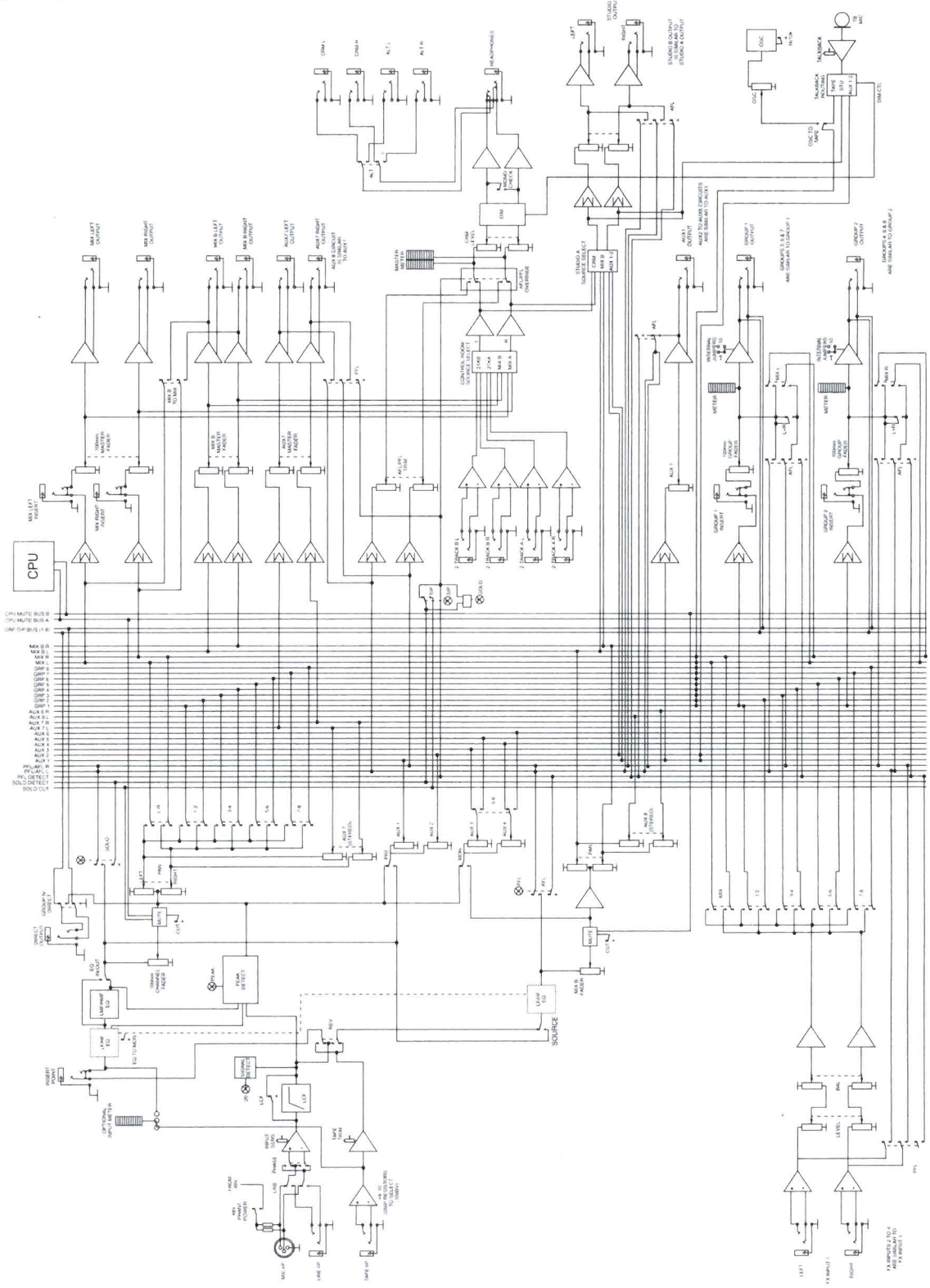
SYSTEM BLO

channel expander
mid-ranges

	-60dBu to -8dBu
	-40dBu to +12dBu
	-10dBV / +4dBu
	+4dBu
	2kΩ
	> 10kΩ
	< 75Ω

	227.79mm (8.97")
	059.36mm (41.71")
	303.20mm (51.31")
	815.52mm (32.11")
	780.71mm (30.74")
	44.0 kg (97 lbs)
	53.6 kg (118 lbs)
	33.0 kg (73 lbs)

SYSTEM BLOCK DIAGRAM



328XD

- Up to 42 inputs at mixdown
- 16 mic/line and 5 stereo inputs, 8 busses
- 16 digital tape returns in ADAT Optical and TDIF formats
- Integrated meterbank
- 3-band parametric EQ, 6 auxes and dynamics processing on every channel
- 2 high resolution Lexicon effects units
- Moving 100mm faders
- Snapshot and comprehensive dynamic automation
- Undo/redo, copy and paste functions
- Solo-in-place, AFL and PFL solos
- MIDI timecode input and output
- Machine control for all sequencers and many DTRs/HDRs
- 2 console linking - automatically configured
- Total status recall on power up
- Flexibility to route tape sends pre or post fader

TYPICAL SPECIFICATIONS

Frequency Response	@ +4dBu into 600Ω (20Hz to 20kHz - Rel. 1kHz) ..... +0/-0.5dB
Dynamic Range	Digital Input to Mix Output ..... 115dB Mic Input to Mix Output ..... 108dB Stereo Input to Mix Output 108dB
T.H.D.	Mic Input to Mix Output (@+14dBu) ..... < 0.005%, 1kHz @ 30dB gain
Hum and Noise	Mic Input E.I.N. ..... -127dBu (150Ω source)
Residual Output Noise (measured RMS over 20Hz-22kHz)	Mix Output (Mix fader down) ..... -90dBu Mix Output (Mix fader @ unity, ch. fader down) ..... < -90dBu Mix Output (Mix fader @ unity, 32 ch. routed, faders @ unity) ... < -78dBu
CMRR	Typical with max. gain @ 1kHz ..... > 80dB Typical with any gain @ 50Hz ..... > 70dB
Crosstalk	Adjacent Input Channels ..... > 95dB Fader Attenuation ..... > 95dB Channel Mute Attenuation ..... > 95dB Pan Isolation ..... > 88dB
Sampling Frequency	Internal ..... 44.1kHz / 48kHz External ..... 40kHz - 50kHz
A-D Conversion	Mic/Line Inputs ..... 24-bit, 128x oversampling Stereo Inputs ..... 24-bit, 128x oversampling 2 Track Inputs ..... 24-bit, 128x oversampling
D-A Conversion	Mix Outputs ..... 24-bit, 128x oversampling Control Room Outputs ..... 24-bit, 128x oversampling Aux Outputs ..... 24-bit, 128x oversampling
Internal Processing	24-bit, 56-bit bussing
Signal Latency	Channel Input to Mix Output @ 44.1kHz ..... < 2.5ms Channel Input to Mix Output @ 48kHz ..... < 2.5ms
Faders	Type ..... 100mm motorised and stablised Resolution ..... 128 steps over 100mm range
Digital Output Dither	Wordlength 16, 20, 24-bit
Power Consumption	150W

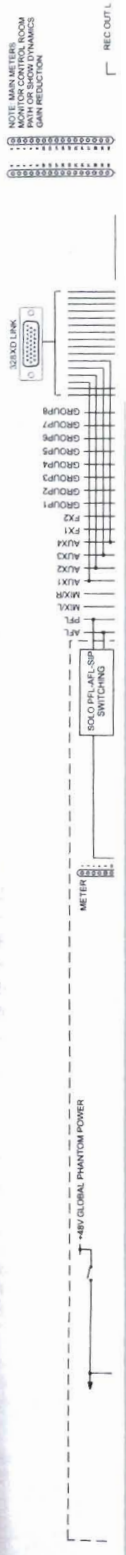
INPUT / OUTPUT SPECIFICATIONS

Input & Output Levels	Mic Input ..... +16dBu Balanced Inputs ..... > +30dBu Balanced Outputs ..... +18dBu
Input & Output Impedances	Mic Input ..... 2kΩ All other Inputs ..... 45kΩ Headphone Output ..... 40Ω All other Outputs ..... < 75Ω

DIMENSIONS & WEIGHT

Height	160mm (6.3")
Width	715mm (28.2")
Depth	537mm (21.1")
Weight	14.4 kg (31.7 lbs)

SYSTEM BLOCI



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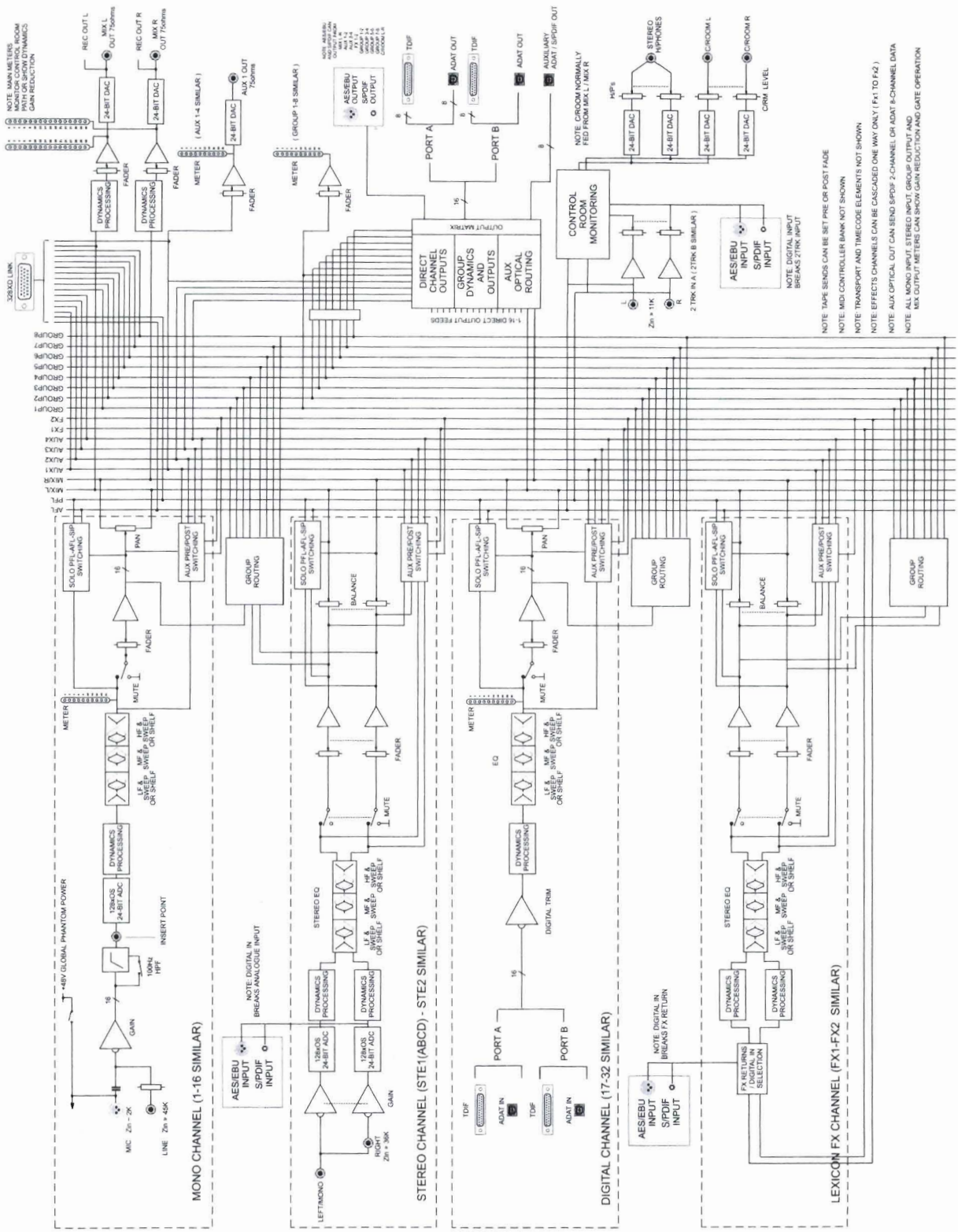


Compact

- Desktop audio mixers
- Available in two versions: Compact 10 and Compact 4
- High quality Class A mic preamps
- Switchable +48V phantom power and indicator
- 3-band EQ on all input channels
- Switchable RIAA turntable equalisation
- Direct Injection for basses, guitars and keyboards
- Zero-latency monitoring
- Failsafe recording bus
- Dedicated artist and engineer headphone monitoring

TYPICAL SPECIFICATIONS

Frequency Response	Mic / Line Input to any Output ..... +/-0.5dB, 20Hz - 20kHz
T.H.D.	Mic gain 30dB, Mix out, fader max @ 1kHz ..... < 0.007%
Crosstalk (@ 1kHz)	Channel level cut-off (rel +10 mark) ..... > 80dB
EQ	HF ..... 12kHz, +/-12dB MF ..... 600kHz, +/-12dB LF ..... 60Hz, +/-12dB
Operating Conditions	Temperature Range ..... 0°C to +50°C

INPUT / OUTPUT SPECIFICATIONS

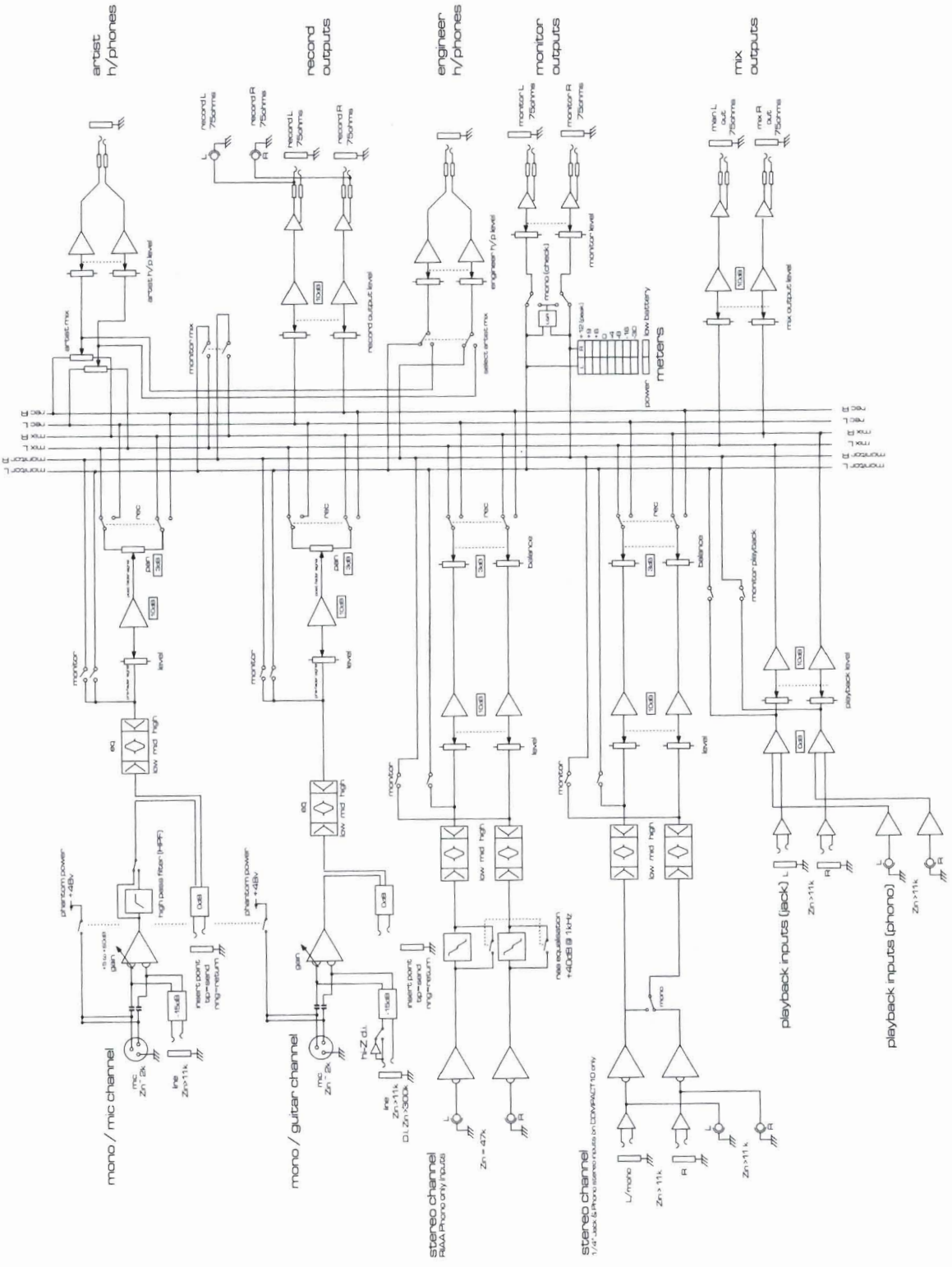
Input & Output Levels	Mic Input ..... +16dBu max. Line Input ..... +30dBu max. Stereo Input ..... +20dBu max. Headphones (@ 200Ω) 300mW
Input & Output Impedances	Mic Input ..... 2kΩ Line Input ..... 10kΩ Hi-Z Input ..... 300kΩ Stereo Input ..... 47kΩ Outputs 75Ω

DIMENSIONS & WEIGHT

Height	Compact 4 / 10 ..... 55mm (2.17")
Width	Compact 4 ..... 504mm (20.0") Compact 10 ..... 438mm (17.2")
Depth	Compact 4 / 10 ..... 246mm (9.69")
Weight	Compact 4 ..... 1.75 kg (3.85 lbs) Compact 10 ..... 2.75 kg (6.05 lbs)

SYSTEM BLOCK

SYSTEM BLOCK DIAGRAM



Live Comparison Chart

Front of House	Series FIVE	MH4 (dual purpose)	MH3 (dual purpose)	k3 Theatre	k2	Series TWO	k1	
Mono Inputs	24-56ch	24-56ch	24-56ch	16-48ch	24-48ch	24-40ch	8-32ch	32c
Sub Groups	8 (individual sends)	8 (individual sends)	8 (individual sends)	8 (individual sends)	8 (paired sends)	8 (paired sends)	4 (paired sends)	
Master Outputs	L/R + Mono	L/R + Mono	L/R + Mono	Stereo + Mono	Stereo + Mono	L/R + Mono	Stereo + Mono	
Matrix	16 x 10 standard	20 x 8	12 x 4 standard	12 x 4 standard	11 x 4 standard	11 x 2	4 x 4 standard	
VCA Groups	10	8	8	-	-	-	-	
Stereo Inputs	4 standard, more optional	4 standard, more optional	4 standard, more optional	Optional	4	2	2 standard, more optional	
EQ	4 band parametric	4 swept, 2 parametric	4 swept, 2 parametric	4 swept, 2 switched Q	2 fixed, 2 swept	2 fixed, 2 swept	2 fixed, 2 swept	
Filters	Swept HPF, swept LPF	Swept HPF	Swept HPF	100Hz HPF	Swept HPF	Swept HPF	100Hz HPF	
Aux Sends	12, 4 may be as 2 x stereo	12 Mono	12 Mono	8 Pre/Post switched in pairs	8 Pre/Post switched in pairs	8 Pre/Post switched in pairs	6 Pre/Post switched in pairs	
Mute Groups	8	8	8	8	8	8	-	
FX Returns	4 full stereo inputs	4 full stereo + 4 stereo with 4 band EQ	4 full stereo + 8 stereo with 3 band EQ	Optional stereo return per pair of groups	4 stereo + 4 full stereo	4	2 full stereo inputs	
Linking	Audio + Logic	Audio + Logic	Audio + Logic	-	-	-	-	
Other Features	LCR pan, Mute + MIDI snapshot	LCR pan, Mute + MIDI snapshot	LCR pan, Mute + MIDI snapshot	Mute + MIDI snapshot	Mute + MIDI snapshot	Mute + MIDI snapshot	Rack available, stereo modules available	

Stage Monitor	FIVE Monitor (32-bus)	FIVE Monitor (24-bus)	MH4 (dual purpose)	MH3 (dual purpose)	SM20	Spirit Monitor 2
Mono Inputs	40-56ch	44-60ch	24-56ch	24-56ch	32-56ch	24-40ch
Monitor Sends	34, all mono/stereo configurable	26, 9 mono/stereo configurable	8 mono + 4 stereo, or 12 mono + 2 stereo, or 16 mono	8 mono + 2 stereo	20, 7 mono/stereo configurable	12 (8 mono, 2 stereo)
Master Outputs	Stereo Wedge + Stereo ALT SOLO	Stereo Wedge + Stereo ALT SOLO	Stereo Wedge	Stereo Wedge	Stereo Wedge	Stereo + Wedge
Matrix	Optional 23 x 16	Optional 23 x 12	20 x 8	12 x 4 (expandable to 12 x 8)	-	-
VCA Groups	8	8	8	8	-	-
Stereo Inputs	Optional	Optional	4 standard, more optional	4 standard, more optional	-	-
EQ	4 band parametric	4 band parametric	4 swept, 2 parametric	4 swept, 2 parametric	4 swept, 2 parametric	2 fixed, 2 swept
Filters	Swept HPF, swept LPF	Swept HPF, swept LPF	Swept HPF	Swept HPF	Swept HPF	100Hz HPF
Mute Groups	8	8	8	8	8	-
FX Returns	-	-	Line I/P to each group	Line I/P to each group	Line I/P to each group	2
Linking	Audio + Logic	Audio + Logic	Audio + Logic	Audio + Logic	Audio + Logic	-
Other Features	AFL selects page on BSS™ Varicurve or dbx DriveRack. ALT SOLO bus	AFL selects page on BSS™ Varicurve or dbx DriveRack. ALT SOLO bus	AFL selects page on BSS™ Varicurve or dbx DriveRack.	AFL selects page on BSS™ Varicurve or dbx DriveRack.	AFL selects page on BSS™ Varicurve or dbx DriveRack.	Stereo Ambience Mic Input

Powered Mix
Mono Inputs
Stereo Inputs
EQ
Filters
Aux Sends
FX Returns
Other Features

Series TWO	k1	324 Live	Spirit 8	GB4	Spirit Live 42	LX7ii
24-40ch	8-32ch	32ch (16 analogue +16 TDIF)	24-40ch	12-40ch	12-40ch	16-32ch
8 (paired sends)	4 (paired sends)	4 (individual sends)	8 (paired sends)	4 (paired sends)	4 (paired sends)	4 (paired sends)
L/R + Mono	Stereo + Mono	L/R + Mono	L/R	L/R + Mono	L/R	L/R + Mono
11 x 2	4 x 4 standard	4	2	7 x 4 standard	2	-
-	-	-	-	-	-	-
2	2 standard, more optional	2	2	2 standard	1 (12ch) 2 (16-40ch)	2
2 fixed, 2 swept	2 fixed, 2 swept	3 band fully parametric	2 fixed, 2 swept	2 fixed, 2 swept	2 fixed, 2 swept	2 fixed 2 swept
Swept HPF	100Hz HPF	100Hz HPF	100Hz HPF	100Hz HPF	100Hz HPF	100Hz HPF
8 Pre/Post switched in pairs	6 Pre/Post switched in pairs	6	6	8	6	6 (4 Pre/Post switched in pairs)
8	-	4	4	4	4	-
4	2 full stereo inputs	2	8	2, + 2 stereo inputs	4	2
-	-	-	-	-	-	-
Mute + MIDI snapshot	Rack available, stereo modules available	Total snapshot automation built-in Lexicon FX	Built-in LED input meterbridge	Integral PSU, 12-segment output metering	Optional 8ch expander (12-24ch only)	Integral PSU

Spirit Monitor 2
24-40ch
12 (8 mono, 2 stereo)
Stereo + Wedge
-
-
-
2 fixed, 2 swept
100Hz HPF
-
2
-
Stereo Ambience Mic Input

Powered Mixers	Spirit Powerstation	Spirit Powerpad	GigRac 300/600	GigRac 1000st
Mono Inputs	8ch & 16ch	4ch	8ch	8ch
Stereo Inputs	2 stereo inputs	2 stereo inputs	4 stereo inputs (mono summed)	4 stereo inputs
EQ	3 (swept mid), 2 band fixed on stereo inputs	2 fixed	2 fixed on inputs + 7-band graphic	3 fixed on inputs + 2 x 7-band graphic
Filters	100Hz HPF mono inputs	-	-	-
Aux Sends	3	1	1	1
FX Returns	1 stereo return	1 stereo return	1 stereo return (submix input)	1 stereo return (submix input)
Other Features	Powered, 2 x 300W, 2 x 600W, built in Lexicon FX, 600 has rackmount option	Powered, 2 x 30W, portable	GigRac 300: 300W, GigRac 600: 2 x 300W, portable, 8 built in FX presets	2 x 500W, portable, 10 built in FX presets

Multi-Purpose Comparison Chart

	FX16	FX8	M Series	SX	E Series	Notepad
Rack Mount	Optional	Optional	4,8 & 12 Integral (4 uses rack extender)	Optional	6, 8, 12 & ES Integral (6 & 8 use rack extender)	No
Frame Sizes	16	8	4, 8, 12	12	6, 8, 12, ES (10 Stereo)	4
Mono Channels (mic or line)	16	8	4, 8, 12	12	6, 8, 12, ES (4 mono)	4
Inserts	Mono inputs, Sub-mix, Mix	Mono inputs, Sub-mix, Mix	Mono inputs, Mix	Mono inputs, Mix	Mono inputs, Mix	No
Stereo Channels	4 stereo returns	4 stereo inputs	4 stereo inputs	2 channels with 4 stereo inputs	2 stereo (E6, E8, E12) 10 stereo (ES)	2 stereo
Groups	2	2	-	2	-	-
Direct Outs	All mono channels	All mono channels	All mono channels	All mono channels	-	-
EQ Bands (mono inputs)	3 (swept mid)	3 (swept mid)	3 (swept mid)	3 (swept mid)	3 (swept mid)	2 fixed
EQ Bands (stereo inputs)	No	2 band fixed on stereo inputs	2 band fixed on stereo inputs	2 band fixed on stereo inputs	2 band (E6, E8, E12) 3 band (ES)	-
Filters	100Hz HPF mono inputs	100Hz HPF mono inputs	100Hz HPF mono inputs	100Hz HPF mono inputs	-	-
Auxiliary Sends	3 + Lexicon	2 + Lexicon	4 (2 pre, 2 post)	3	-	1
Returns	4 stereo returns	1 stereo return	4 stereo returns	Stereo Tape Return to Monitor	Stereo Tape Return to Mix/Monitor	1 stereo return
Phantom Power	Global	Global	Global	Global	Global	Global
Typical Applications:						
Band/PA Setups	✔	✔	✔	✔	✔	✔
Small Venues, Conferences	✔	✔	✔	✔	✔	✔
Installed Sound	✔	✔	✔	-	✔	-
Schools, Houses of Worship	✔	✔	✔	✔	✔	✔
Studio Recording	✔	✔	✔	✔	✔	-
Video Pre/ Post-Production	✔	✔	✔	✔	✔	✔
Sub/Location Mixing	✔	✔	✔	✔	✔	✔
Multimedia	✔	✔	✔	✔	✔	✔

Recording/Post-Production Comparison Chart

	Digital 328XD	Ghost LE	Compact
Digital/Analogue Audio	Digital	Analogue	Analogue
Frame Sizes	32	24, 32	4, 10
Meterbridge	Integral	Optional	-
EQ	3-band fully parametric	4-band (with 2 fully parametric mids)	3-band fixed
Aux Sends	4 + 2 internal Lexicon FX	10	-
Groups	8	8	-
Mono Channels	16	24/32	2/4
Tape Returns	16	24/32	-
Stereo Channels / Returns	5	4	2/6
Dynamics	Gate/Compressor/Limiter on all inputs, groups and mix	-	-
Expansion	Can be linked with another Digital 328XD	24 Channel Expander available	-
Faders	100mm	100mm	-
MIDI Control	16 Faders, 16 Encoders, 32 switches	-	-
Transport Controls	Yes	Yes	-
Phantom Power	Yes	Yes	Yes
Dynamic Automation	All Parameters	Mutes	-

Digital Interface Units

MIC / LINE

The Mic / Line interface converts the digital TDIF port on the rear of all Soundcraft digital consoles into 8 true mic/line inputs. It also provides 8 balanced outputs. The mic preamp is designed with exactly the same characteristics as those found on the Digital 328 and 324 Live.

- 8 balanced XLR inputs
- 8 balanced TRS inputs
- 8 insert points
- 8 balanced direct outputs
- 8 individual +48V phantom power switches
- 8 individual insert point switches
- 8 individual high pass filters (100Hz, 18dB per octave)
- 8 4-stage meters per channel
- 8 UltraMic+ preamplifiers

TYPICAL SPECIFICATIONS

Frequency Response	10Hz - 20kHz, +0/-0.5dB
T.H.D. @ 1kHz	0.05%
Crosstalk @ 1kHz	95dB
Dynamic Range	> 110dB
A/D Convertion	Mic / Line Inputs ..... 24-bit, 128x oversampling
D/A Convertion	All Outputs ..... 24-bit dithered by source when applicable Max Output Level ..... +18dBu
Phantom Power Capability	80mA maximum
Bit Depth	16/20/24 bits selectable from source
Sampling Rate	44kHz - 50kHz selectable from source
Mains Input Voltage Range	90 - 240 VAC @ 50/60Hz
Mains Fuse Rating	T1.0A L/250V
Dimensions	486mm (W) x 230mm (D) x 89mm (H) (2U)
Weight	4.25 kg (excluding packaging)
Power Supply	Integrated, 90 - 240V, 50/60Hz, 25W

AES/EBU

TYPICAL SPE

Frequency Response
T.H.D. @ 1kHz
Bit Depth
Sampling Rate
Dimensions
Weight
Power Supply

ANALOGUE

TYPICAL SPE

Frequency Response
T.H.D. @ 1kHz
Crosstalk @ 1kHz
Dynamic Range
A/D Converter
D/A Converter
Sampling Frequency
Analogue I/P Level
Analogue O/P Level
T.H.D.
Dimensions
Weight
Power Supply

AES/EBU

The AES/EBU interface converts the digital TDIF port on the rear of all Soundcraft Digital consoles into 4 AES/EBU inputs and outputs. Users of systems such as Digidesign Pro Tools ™ can now interface directly with Soundcraft digital consoles. 8 outputs can be fed to units with AES/EBU inputs. The interface requires 1U half rack space and is shipped with power supply.

TYPICAL SPECIFICATIONS

Frequency Response	10Hz - 20kHz, +0/-0.5dB
T.H.D. @ 1kHz	0.02%
Bit Depth	16/20/24 bits selectable from source
Sampling Rate	44 - 50kHz selectable from source
Dimensions	220mm (W) x 157mm (L) x 48mm (H)
Weight	0.8 kg without power supply
Power Supply	9V AC, 3.5W

ANALOGUE

The analogue interface converts the digital TDIF port on the rear of all Soundcraft Digital consoles into 8 analogue Phono (RCA) inputs and 8 analogue Phono (RCA) outputs. All conversion is done using 20-bit technology. The unit allows a standard analogue multitrack to be connected, or to add 8 extra analogue inputs when you need to expand your operation. It will also allow the 8 TDIF outputs to be fed to units accepting analogue inputs. The interface requires 1U half rack space and is shipped with power supply.

TYPICAL SPECIFICATIONS

Frequency Response	10Hz - 20kHz, +0/-0.5dB
T.H.D. @ 1kHz	0.02%
Crosstalk @ 1kHz	80dB
Dynamic Range	> 93dB
A/D Converter	20-bit, 64x oversampling
D/A Converter	20-bit, 64x oversampling
Sampling Frequency	Operates at console frequency
Analogue I/P Level	Maximum +10dBu
Analogue O/P Level	Maximum +10dBu
T.H.D.	0.008 @ 1kHz
Dimensions	220mm (W) x 157mm (L) x 48mm (H)
Weight	0.7 kg without power supply
Power Supply	9V AC, 3.5W

Power Supply Units

CPS2000

All Soundcraft power supply units feature high quality components throughout. Features on the top-of-the-range CPS2000 include:

- Linear circuitry, using industry standard components
- Fewer voltage rails for greater simplicity and reliability
- Load is spread across several power devices on each rail, for optimum heat dissipation
- Voltage monitoring for world-wide use
- Front panel status LEDs indicating thermal shutdown and low mains power
- Heavy current wiring is all hard soldered, minimising number of connectors
- Built-in diode output linking allows two supplies to be paralleled for redundant operation, without a separate switcher box
- Heavy-duty Socapex® DC connectors on both the console and power supply
- Thermal sensing fan speed control for reduced noise and longer life

TYPICAL SPECIFICATIONS

Power Supply Unit	CPS2000	CPS800	CPS450/B	CPS275	CPS150
Height	177.0mm (7.0"), 4U	132.5mm (5.2"), 3U	88.1mm (3.5"), 2U	88.1mm (3.5"), 2U	85.0mm (3.3")
Width at Front	482.6mm (19.0")	482.6mm (19.0")	482.6mm (19.0")	482.6mm (19.0")	287.0mm (11.3")
Width at Rear	440.0mm (17.3")	434.0mm (17.1")	424.0mm (16.7")	427.5mm (16.8")	287.0mm (11.3")
Depth	436.0mm (17.2")	371.5mm (14.6")	305.0mm (12.0")	350.5mm (13.8")	190.0mm (7.5")
Weight	30 kg (66 lbs)	16 kg (35 lbs)	13.2 kg (29 lbs)	11 kg (24.2 lbs)	5.2 kg (11.4 lbs)
Output Voltage	+/-17V, +48V, +8V	+/-17V, +48V, +8V	+/-17V, +48V, +24V, +8V	+/-17V, +48V, +5V	+/-17V, +48V
Power Consumption	980W	650W	400W	450W	100W
Rackmount (as standard)	Yes	Yes	Yes	Yes	No
Rackmount Kit Available	-	-	-	-	Yes

TYPICAL SPECIFICATIONS

Power Supply Unit	DCP200	DCP125	DPS-1
Height	85.0mm (3.3")	85.0mm (3.3")	88.1mm (3.5"), 2U
Width at Front	375.0mm (14.8")	185.0mm (7.3")	482.6mm (19.0")
Width at Rear	375.0mm (14.8")	185.0mm (7.3")	431.0mm (17.0")
Depth	180.0mm (7.1")	210.0mm (8.3")	160.0mm (6.3")
Weight	7.8 kg (17.2 lbs)	4.2 kg (9.2 lbs)	3.0 kg (6 6 lbs)
Output Voltage	+/-17V, +48V, 12VAC	+/-17V	+/-15V, +48V, +5V, +8V
Power Consumption	175W	99W	80W
Rackmount (as standard)	No	No	Yes
Rackmount Kit Available	Yes	Yes	-

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SOUNDCRAFT
HARMAN INTERNATIONAL INDUSTRIES LTD.
CRANBORNE HOUSE, CRANBORNE ROAD, POTTERS BAR, HERTS, EN6 3JN, UK.
TEL: +44 (0)1707 665000 FAX: +44 (0)1707 660742
EMAIL: info@soundcraft.com

SOUNDCRAFT USA
1449 DONELSON PIKE, NASHVILLE TN 37217, USA
TEL: 1-615-360-0471 FAX: 1-615-360-0273
EMAIL: soundcraft-usa@harman.com

www.soundcraft.com

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